

PLAINTIFF'S EXHIBITS 1-95

2020 AUG 17 A 8:07

Subject: RE: leak water from roof top unit
From: Joe McCarry <jhm@peirce.com>
Date: 1/29/2015 8:50 AM
To: David Hatchigian <david3091@verizon.net>

i received the pictures and sent them to the person he will contact you soon he is joseph vagnezzi .

From: David Hatchigian [mailto:david3091@verizon.net]
Sent: Thursday, January 29, 2015 8:19 AM
To: Joe McCarry
Subject: Re: leak water from roof top unit

HELLO JOSEPH, WAS WONDERING IF YOU RECEIVED THE PICTURES OF THE EMPLOYEE WHO VISITED THE JOB CITE AND WAS ABLE TO DETERMINE WHO HE IS? DAVID 610-446-7257

THANKS

On 1/28/2015 9:22 AM, Joe McCarry wrote:

need to know what company installed it and the job name thanks

This email, and any attachment to it, may contain information that is proprietary, privileged or confidential or that may be otherwise legally exempt from disclosure and is intended only for the individual(s) or entity to which it is addressed. If you are not the named recipient, or the employee or agent responsible for delivering it to the intended recipient, you are not authorized to read, print, retain, copy, disclose or distribute this email or any part of it. If you have received this email in error, please return it immediately to the sender, delete it and all copies from your system, and destroy any hard copies of this communication.

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(1)

FAX (610) 527-7516

(610) 446-7257 ANS. MACHINE

DAVID HATCHIGIAN
2414 Township Line Road
Havertown, PA 19083-5236
david3091@verizon.net

February 1, 2015

PEIRCE-PHELPS INC
2000 N. 59th STREET
PHILADELPHIA PA. 19131
215-879-7000

**RE: CARRIER FOOF TOP UNIT LEAKING WATER INTO
APARTMENT. 7512 BRENTWOOD ROAD PHILA. PA. 19151**

Dear Mr. Joseph Vagnozzi

Your name has been given to me as someone who has previously visited the job cite and verified the leaking condensing unit at the above address. I appreciate your call to me and I have returned your call several times. Please be advised that time is of the essence. The water is leaking into the apartment. Please be in touch by way of 24-hour answering service , fax, E/M all listed above.

Thank you for your anticipated cooperation.

Sincerely,

David Hatchigian

Forward U.S.P.S. 3817



FAX (610) 527-7516

(610) 446-7257 ANS. MACHINE

DAVID HATCHIGIAN
2414 Township Line Road
Havertown, PA 19083-5236
david3091@verizon.net

February 9, 2015
CARRIER CORPORATION
Customer Relation
P.O. Box 4808, Carrier Parkway
Syracuse, N.Y. 13221

**RE: ROOF TOP CONDENSING UNIT LEAKING WATER INTO THE
BUILDING. 7512 BRENTWOOD ROAD PHILA. PA. 19151**

Dear Sir/Madam

Please be advised that on or about November 3, 2005 David Hatchigian had purchased one Carrier Roof Top Condensing Unit no. CA 50GL0243 AND CA CPRFCURBOO7A00 Roof Top Curb FROM Peirce Phelps 2000 north 59th Street Phila. Pa. 19131 which I was told by Mr. Joe Skins that Carrier could not guarantee this unit unless I agreed to buy the roof top curb which is included in the bill. (Copy invoice enclosed)

This unit has been leaking water into the apartment ceiling since it has been installed and verified by Mr. Joseph Vagnozzi on September 25, 2013. (Picture enclosed) This leak was supposedly diagnosed and sealed by Mr. Joseph Vagnozzi on the above date. Obviously that is not what happened and the unit is still and always has been leaking. I have been in touch with Mr. Joseph McCarry and called and sent letter dated February 1, 2015 to Mr. Joseph Vagnozzi in hopes to resolve the on going problem.

Please find four (4) pictures no. (1) indicating rust inside of duct. No. (2) water stains inside of duct. No. (3) Mr. Joseph Vagnozzi vigorously at work. No. (4) Unit installed on roof top curb.

3

•••••210

I need this problem resolved as quickly as possible. Time is of the essence.

Thank you for your anticipated cooperation

Sincerely yours,

David Hatchigian

Enclosures (3)

Forward U.S.P.S. 3817

CC: CARRIER CORPORATION
One Carrier Place
Farmington, Conn. 06034-4018
Attention: GARNETT KEELEY/ALEXA GIBB

CARRIER (2)

(4)

DAVID HATCHIGIAN
2414 Township Line Road
Havertown, PA 19083-5236
david3091@verizon.net

February 15, 2015

CARRIER CORPORATION
Customer Relation
P.O. Box 4808, Carrier Parkway
Syracuse, N.Y. 13221

RE: ROOF TOP CONDENSING UNIT LEAKING WATER INTO THE
BUILDING. 7512 BRENTWOOD ROAD PHILA. PA. 19151

Dear Sir/Madam

Please find David Hatchigian's bill for replacing defective Roof Top Condensing Unit and non response to ongoing leaking unit.

Material and Labor to replace leaking Roof Top Condensing Unit, ceiling rafters, plaster, prime and two coat epoxy paint on going rental loss.

Fifteen Thousand Dollars (\$15,000)

Any questions please call or E/M. If I do not hear from you, you will have forced me to exercise my legal rights.

I need this problem resolved as quickly as possible. Time is of the essence.

Thank you for your anticipated cooperation.



Sincerely yours,

David Hatchigian

Enclosures (3)

Forward U.S.P.S. 3817

CC: CARRIER CORPORATION
One Carrier Place
Farmington, Conn. 06034-4018
Attention: GARNETT KEELEY/ALEXA GIBB

PEIRCE-PHELPS INC.
20000 North 59th Street
Philadelphia Pa. 19131

CARRIER (3)

(6)

Subject: Carrier Customer Relations Request
From: "Nash, Lynn BIS" <Lynn.Nash@carrier.utc.com>
Date: 2/16/2015 12:55 PM
To: "david3091@verizon.net" <david3091@verizon.net>, "Carrier, Contact BIS"
<Contact.Carrier@carrier.utc.com>

Dear Mr. Hatchigian,

Thank your letter to Carrier. I am sorry to hear you are having problems with water leaks. I would like to look into this further but need the following information:

--serial number for the 50GL unit
--name and phone number of the dealer that services/maintains the unit

I await your reply.

Regards,

Lynn Nash
Carrier Corporation

7

Subject: Re: Carrier Customer Relations Request
From: David Hatchigian <david3091@verizon.net>
Date: 2/16/2015 3:33 PM
To: "Nash, Lynn BIS" <Lynn.Nash@carrier.utc.com>

THANK YOU SO MUCH FOR GETTING BACK TO ME . I AM THE INSTALLER AND PREVIOUSLY INSPECTED AND CONFORMED BY JOSEPH VAGNOZZI ON SEPTEMBER 25, 2013 FROM PEIRCE-PHILPS INC.

PLEASE FIND D.H. L.O.I. TO CARRIER CORP. AND PEIRCE-PHELPS INC. FEBRUARY 15, 2015, FEBRUARY 9, 2014, FEBRUARY 1, 2015, E/M TO JOESPH McCARRY, JOSEPH VAGNOZZI

ORIGINAL INVOICE NOVEMBER 3, 2005 I WILL GET BACK TO YOU WITH THE S/N

TIME IS OF THE ESSENCE!!!

ANY QUESTIONS PLEASE CALL OR E/M DAVID3091@VERIZON.NET

THANK YOU, DAVID

On 2/16/2015 12:55 PM, Nash, Lynn BIS wrote:

Dear Mr. Hatchigian,

Thank your letter to Carrier. I am sorry to hear you are having problems with water leaks. I would like to look into this further but need the following information:

--serial number for the 50GL unit
--name and phone number of the dealer that services/maintains the unit

I await your reply.

Regards,

Lynn Nash
Carrier Corporation

— Attachments:

CARRIER LYNN NASH.pdf

218 KB

8

Subject: Re: Carrier Customer Relations Request
From: David Hatchigian <david3091@verizon.net>
Date: 2/19/2015 12:11 PM
To: "Nash, Lynn BIS" <Lynn.Nash@carrier.utc.com>

HELLO MS. LYNN NASH, JUST WANTED TO CHECK WITH YOU TO SEE IF YOU HAD ANY
QUESTIONS FOR ME? DAVID 610-446-7257
On 2/16/2015 12:55 PM, Nash, Lynn BIS wrote:

Dear Mr. Hatchigian,

Thank your letter to Carrier. I am sorry to hear you are having problems with water leaks. I would like to look into this further but need the following information:

--serial number for the 50GL unit
--name and phone number of the dealer that services/maintains the unit

I await your reply.

Regards,

Lynn Nash
Carrier Corporation

The logo for Carrier, featuring a stylized circular emblem with a central figure and the word "Carrier" in a script font below it.

Subject: Re: 50gl
From: David Hatchigian <david3091@verizon.net>
Date: 2/22/2015 10:32 PM
To: Joseph Vagnozzi <JPV@peirce.com>

BY THE WAY WHAT EVER HAPPEN TO THE FILTER RACK ASSEMBLY? CAN YOU BRING ONE WITH YOU AND I WILL GIVE YOU A CHECK? DAVID

On 2/20/2015 5:10 PM, Joseph Vagnozzi wrote:

Any time after 9am works for me.

From: David Hatchigian [mailto:david3091@verizon.net]

Sent: Friday, February 20, 2015 4:57 PM

(2)

To: Joseph Vagnozzi

Subject: Re: 50gl

I AM SORRY TO HEAR THAT YOU HAVE BEEN ILL AND WISH YOU A SPEEDY RECOVERY. AFTER WE MEET LAST I HAD OPENED UP THE CEILING FURTHER TO REMOVE AND REPLACE THE INSULATION WITH NEW. I THAN INSERTED A TURKEY PAN UNDERNEATH THE DUCK WORK IN THE EVENT A LEAK WOULD OCCUR AGAIN. I THEN PURCHASED NEW 5/8 WATER RESISTANT DRY WALL AND PAINTED THE TOP SIDE. I NOW FIND DETERIORATED MOLD INFESTED DRYWALL WHILE LEAKING WATER INTO THE APARTMENT. I NEVER WAS CONVINCED THAT THE SO CALLED SEREW HOLES (1/8") WITH SCREW IN HOLE WAS CAUSING THE LEAK. BUT I AM NOT THE EXPERT. I DO HONESTLY BELEAVE WE NEVER FOUND THE LEAK. I NEED TO CORRECT THIS PROBLEM AS QUICK AS POSSIBLE . I AM IN VIOLATION OF THE PHILADELPHIA APARTMENT HOUSING CODE AND UNABLE TO RENT THE APARTMENT. NEXT FRIDAY WILL BE FIND IF NOT SOONER WHAT TIME 610-446-7257 THANK YOU. DAVID

On 2/20/2015 4:23 PM, Joseph Vagnozzi wrote:

David,

It has been brought to my attention that you have been attempting to contact me. I know I reached out to you before, but we never connected. Sorry for the delay I have been travelling and out sick most of the month I saw a copy of a letter you sent to me on Feb 1st for the first time in Today's email from the factory. We moved address since we meet and I have not been in the new one to see if it was forwarded.

I found your email address after looking for my notes on the visit.

It looks like we sealed around the screws in the return section during our last visit with silicone. See attached picture for location of leak we identified.

If the silicone has worn away, the leak will reappear. I would suggest trying outdoor mastic for a longer lasting material than silicone.

I have next Friday open if you would like to re look at it the job.

Please let me know

Thanks

(10)

Subject: Re: 50gl
From: Joseph Vagnozzi <JPV@peirce.com>
Date: 2/27/2015 9:17 AM
To: David Hatchigian <david3091@verizon.net>

I got caught in the phone this morning and might be 10 mins late but I am On my way

Sent from my iPhone

On Feb 27, 2015, at 7:59 AM, "David Hatchigian" <david3091@verizon.net> wrote:

3

I AM LEAVING NOW HOPE TO SEE YOU AT 7512 BRENTWOOD ROAD PHILA. PA. 19151
AT NINE THIRTY(9:30) MY CELL NO. 215-280-6345 DAVID

On 2/24/2015 2:26 PM, Joseph Vagnozzi wrote:

Sorry I do not handle parts and am unable to provide one personally.

I would suggest as I have in the past to contact our parts store or your salesman
for information on the filter rack.

I will see you Friday.

Hopefully it will be warm enough to use a hose like last time to identify the leak
again.

Please have your service truck on site. Just a reminder I do not have any tools
since I am a factory rep and not a service man.

Thanks

Sent from my iPhone

On Feb 22, 2015, at 10:32 PM, "David Hatchigian" <david3091@verizon.net>
wrote:

BY THE WAY WHAT EVER HAPPEN TO THE FILTER RACK ASSEMBLY? CAN YOU
BRING ONE WITH YOU AND I WILL GIVE YOU A CHECK? DAVID

On 2/20/2015 5:10 PM, Joseph Vagnozzi wrote:

Any time after 9am works for me.

From: David Hatchigian [mailto:david3091@verizon.net]
Sent: Friday, February 20, 2015 4:57 PM

11

FAX (610) 527-7516

(610) 446-7257 ANS. MACHINE

DAVID HATCHIGIAN
2414 Township Line Road
Havertown, PA 19083-5236
david3091@verizon.net

March 4, 2015

CARRIER CORPORATION
Customer Relation
P.O. Box 4808, Carrier Parkway
Syracuse, N.Y. 13221

**RE: ROOF TOP CONDENSING UNIT LEAKING WATER INTO THE
BUILDING. 7512 BRENTWOOD ROAD PHILA. PA. 19151**

Dear Sir/Madam

Please be advised that on February 27, 2015 9:30 a.m., Joseph Vagnozzi, Technical Service Advisor from Peirce-Phelps, Inc. and myself have once again confirmed a long and continuing roof top condensing unit leaking water in to the apartment at 7512 Brentwood Road Philadelphia Pa. 19151

Please find David Hatchigan's bill for replacing defective Roof Top Condensing Unit and non response to ongoing leaking unit.

Material and Labor to replace leaking Roof Top Condensing Unit, ceiling rafters, plaster, prime and two coat epoxy paint and on going rental loss.

Fifteen Thousand Dollars (\$15,000)

Any questions please call or E/M. If I do not hear from you, you will have forced me to exercise my legal rights.

(12)

00000000000000000000000000000000

Case ID: 150604314

I need this problem resolved as quickly as possible. Time is of the essence.

Thank you for your anticipated cooperation.

Respectfully submitted,



David Hatchigian

Enclosures (3)

Forward U.S.P.S. 3817

CC: CARRIER CORPORATION
One Carrier Place
Farmington, Conn. 06034-4018
Attention: GARNETT KEELEY/ALEXA GIBB

PEIRCE-PHELPS INC.
Joseph P. Vagnozzi
20000 North 59th Street
Philadelphia Pa. 19131
215-879-7249/215-879-5141 fax
jpv@peirce.com
CARRIER (3)

Lynn Nash@carrier.utc.com

(13)

Case ID: 150604314

STAL SERVICE

CERTIFICATE OF MAILING

USED FOR DOMESTIC AND INTERNATIONAL MAIL, DOES NOT
APPLY FOR INSURANCE-POSTMASTER

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David Hatchigian

2414 Township Line Road

Havertown, PA 19083-5236

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Postmaster for current
fee.

One piece of ordinary mail addressed to:

PGIR 80-PAGZPS 1/10

J. OSBORN P. VAGNAZZI

2000 North 59th Street

PHILA PA 19131

UNITED STATES
POSTAL SERVICE

1000

U.S. POSTAGE
PAID
VILLANOVA, PA
19085
MAR 03, 15
AMOUNT\$1.30
00023287-28

PS Form 3817, January 2001

U.S. POSTAL SERVICE

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David Hatchigian

2414 Township Line Road

Havertown, PA 19083-5236

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or meter postage and
post mark. Inquire of
Postmaster for current
fee.UNITED STATES
POSTAL SERVICE

1000

U.S. POSTAGE
PAID
VILLANOVA, PA
19085
MAR 03, 15
AMOUNT\$1.30
00023287-28

One piece of ordinary mail addressed to:

CAPRICE CORPORATION

ONE CAPRICE PLACE

FARMINGTON, CONN. 06034-8018

PS Form 3817, January 2001

U.S. POSTAL SERVICE

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PROVIDE FOR INSURANCE-POSTMASTER

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David Hatchigian

2414 Township Line Road

Havertown, PA 19083-5236

Affix fee here in stamps
or meter postage and
post mark. Inquire of
Postmaster for current
fee.UNITED STATES
POSTAL SERVICE

1000

U.S. POSTAGE
PAID
VILLANOVA, PA
19085
MAR 03, 15
AMOUNT\$1.30
00023287-28

One piece of ordinary mail addressed to:

CAPRICE CORPORATION

CUSTOMER RELATIONS

P.O. Box 4808 CAPRICE

SYRACUSE, N.Y. 13222

PARKWAY

(14)

PS Form 3817, January 2001

Subject: Carrier Customer Relations Request

From: "Nash, Lynn BIS" <Lynn.Nash@carrier.utc.com>

Date: 3/11/2015 3:17 PM

To: "david3091@verizon.net" <david3091@verizon.net>, "Carrier, Contact BIS" <Contact.Carrier@carrier.utc.com>

Dear Mr. Hatchigian,

I apologize for the delay in getting back to you.

I have attached the warranty certificate that pertains to the 50GL, 3805g41639. Mr. Vagnozzi indicated that at his last site visit, it was not determined that the cause of the leak is the unit. In any case, any property damages would need to be subrogated between your insurance carrier, and Carrier's insurance carrier.

If you have additional questions, certainly let me know.

Regards,

Lynn Nash
Carrier Corporation

—Attachments:

50gl warranty.pdf

26.5 KB

(15)



CARRIER CORPORATION

FOR SERVICE OR REPAIR, FOLLOW THESE STEPS IN ORDER:

FIRST: Contact the installer. You may find their name on the furnace or in your Homeowner's Packet. If the installer's name is not known, call your builder or home retailer if yours is a new residence.

SECOND: Contact the nearest distributor. (See telephone yellow pages.)

THIRD: Contact:

CARRIER CORPORATION Consumer Relations

P.O. Box 4808

Syracuse, New York 13221

Phone: 1-800-227-7437

Model No. 50G L

Unit Serial No. H3805691639

Date of Installation

Installed by DAVID RATCHANGAN

Name of Owner

Address of Installation 7572 BRENTWOOD RD

Extended Protection Limited Warranty

PHILA PA 19151

FIVE-YEAR LIMITED WARRANTY - Carrier (hereinafter referred to as "Company") warrants this product to be free from defects in material and workmanship. If a defect is found within five years from date of original installation of product (whether or not actual use begins on that date) Company will provide a new or remanufactured part, at Company's sole option, to replace any defective part, without charge for the part itself.

FIFTEEN-YEAR LIMITED WARRANTY ON HEAT EXCHANGER ONLY - If a defect is found in the heat exchanger within fifteen years from the date of original installation of product, Company will either provide a new or remanufactured heat exchanger, without charge for the part itself, or at Company's option, allow a credit in the amount of the then factory selling price for a new equivalent heat exchanger toward the retail purchase price of a new Carrier furnace.

TEN-YEAR LIMITED WARRANTY ON COMPRESSOR ONLY - If a defect is found in the compressor within ten years from the date of original installation of product, Company will either provide a new or remanufactured compressor, at Company's sole option, to replace any defective compressor, without charge for the part itself.

NONE OF THESE WARRANTIES INCLUDE LABOR OR OTHER COSTS INCURRED FOR DIAGNOSING, REPAIRING, REMOVING, INSTALLING, SHIPPING, SERVICING OR HANDLING OF EITHER DEFECTIVE PARTS, OR REPLACEMENT PARTS, OR NEW UNIT.

WARRANTY CONDITIONS:

1. Warranties apply only to furnaces in their original installation location.
2. Installation, use, care, and maintenance must be normal and in accordance with instructions contained in the Owner's Manual and Company's service information.
3. Defective parts must be returned to the distributor through a registered servicing dealer for credit.
4. All work shall be performed during normal working hours.

LIMITATIONS OF WARRANTIES - ALL IMPLIED WARRANTIES (INCLUDING IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE) ARE HEREBY LIMITED IN DURATION TO THE PERIOD FOR WHICH THE LIMITED WARRANTY IS GIVEN AND APPLIES. SOME STATES DO NOT ALLOW LIMITATIONS ON HOW LONG AN IMPLIED WARRANTY LASTS, SO THE ABOVE MAY NOT APPLY TO YOU. THE EXPRESSED WARRANTIES MADE IN THIS WARRANTY ARE EXCLUSIVE AND MAY NOT BE ALTERED, ENLARGED, OR CHANGED BY ANY DISTRIBUTOR, DEALER, OR OTHER PERSON, WHATSOEVER.

COMPANY WILL NOT BE RESPONSIBLE FOR:

1. Normal maintenance as outlined in the installation and servicing instructions or Owner's Manual, including filter cleaning and/or replacement and lubrication.
2. Damage or repairs required as a consequence of faulty installation, misapplication, abuse, improper servicing, unauthorized alteration or improper operation.
3. Failure to start due to voltage conditions, blown fuses, open circuit breakers, or damages due to the inadequacy or interruption of electrical service.
4. Damage as a result of floods, winds, fires, lightning, accidents, corrosive environments or other conditions beyond the control of Company.
5. Parts not supplied or designated by Company, or damages resulting from their use.
6. Company furnaces installed outside the continental U.S.A., Alaska, Hawaii, and Canada.
7. Electricity or fuel costs, or increases in electricity or fuel costs from any reason whatsoever, including additional or unusual use of supplemental electric heat.
8. **ANY SPECIAL INDIRECT OR CONSEQUENTIAL PROPERTY OR COMMERCIAL DAMAGE OF ANY NATURE WHATSOEVER.** Some states do not allow the exclusion of incidental or consequential damages, so the above limitation may not apply to you.

This Warranty gives you specific legal rights, and you may also have other rights which vary from state to state.

16

FAX (610) 527-7516

(610) 446-7257 ANS. MACHINE

DAVID HATCHIGIAN
2414 Township Line Road
Havertown, PA 19083-5236
david3091@verizon.net

March 17, 2015

CARRIER CORPORATION
Customer Relation
P.O. Box 4808, Carrier Parkway
Syracuse, N.Y. 13221

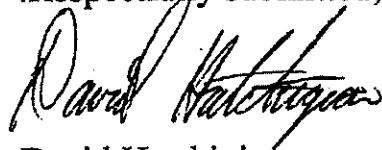
RE: ROOF TOP CONDENSING UNIT LEAKING WATER INTO THE
BUILDING. 7512 BRENTWOOD ROAD PHILA. PA. 19151

Dear Sir/Madam

Please be advised that the above job cite is available for your
inspection and confirmation of leaking roof top condensing unit.

Thank you for your anticipated cooperation.

Respectfully submitted,



David Hatchigian

Enclosures (2)

Forward U.S.P.S. 3817

CC: CARRIER CORPORATION
One Carrier Place
Farmington, Conn. 06034-4018
Attention: GARNETT KEELEY/ALEXA GIBB

17

0500-210

Case ID: 150604314

PEIRCE-PHELPS INC.
Joseph P. Vagnozzi
20000 North 59th Street
Philadelphia Pa. 19131
215-879-7249/215-879-5141 fax
jpv@peirce.com
CARRIER (3)

Lynn Nash@carrier.utc.com

78

U.S. POSTAL SERVICE		CERTIFICATE OF MAILING	
MAY BE USED FOR DOMESTIC AND INTERNATIONAL MAIL. DOES NOT PROVIDE FOR INSURANCE. POSTMASTER			
Received From:		Affix fee here in stamp or meter postage and post mark. Inquire of Postmaster for current fee.	
David Hatchigan 2414 Township Line Road Havertown, PA 19083-5236		 UNITED STATES POSTAL SERVICE	
One piece of ordinary mail addressed to:		U.S. POSTAGE PAID VILLANOVA, PA 19085 MAR 16, 15 AMOUNT \$1.30 00045774-28	
<u>CARRIER CORPORATION</u> <u>CUSTOMER RELATION</u> <u>P.O. BOX 4808 CARRIER OPEN WAY</u> <u>SYRACUSE, NY 13221</u>			

PS Form 3817, January 2001

U.S. POSTAL SERVICE		CERTIFICATE OF MAILING	
MAY BE USED FOR DOMESTIC AND INTERNATIONAL MAIL. DOES NOT PROVIDE FOR INSURANCE. POSTMASTER			
Received From:		Affix fee here in stamp or meter postage and post mark. Inquire of Postmaster for current fee.	
David Hatchigan 2414 Township Line Road Havertown, PA 19083-5236		 UNITED STATES POSTAL SERVICE	
One piece of ordinary mail addressed to:		U.S. POSTAGE PAID VILLANOVA, PA 19085 MAR 16, 15 AMOUNT \$1.30 00045774-28	
<u>CARRIER CORPORATION</u> <u>ONE CARRIER PLACE</u> <u>FARMINGTON, CT 06032-4018</u> <u>ATT. GREENETT 100208/1000, CT 06032</u>			

PS Form 3817, January 2001

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Received From:		Affix fee here in stamp or meter postage and post mark. Inquire of Postmaster for current fee.	
David Hatchigan 2414 Township Line Road Havertown, PA 19083-5236		 UNITED STATES POSTAL SERVICE	
One piece of ordinary mail addressed to:		U.S. POSTAGE PAID VILLANOVA, PA 19085 MAR 16, 15 AMOUNT \$1.30 00045774-28	
<u>PIERCE-PHELPS INC.</u> <u>JOSEPH P. VAGOZZI</u> <u>2000 NORTH 57TH STREET</u> <u>PHILADELPHIA 19131</u>			

PS Form 3817, January 2001

19

FAX (610) 527-7516

(610) 446-7257 ANS. MACHINE

DAVID HATCHIGIAN
2414 Township Line Road
Havertown, PA 19083-5236
david3091@verizon.net

June 15, 2015

CARRIER CORPORATION
Customer Relation
P.O. Box 4808, Carrier Parkway
Syracuse, N.Y. 13221

RE: ROOF TOP CONDENSING UNIT LEAKING WATER INTO THE
BUILDING. 7512 BRENTWOOD ROAD PHILA. PA. 19151

Dear Sir/Madam

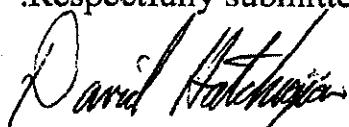
Please be advised that the above property which has a Carrier Roof Top Condensing Unit is currently leaking water into the apartment building causing a mold infestation condition and my tenant has been forced to vacate the apartment building and confirmed by Joseph P. Vagnozzi (Pierce-Phelps Inc. rep.)

I am demanding payment of fifteen thousand (\$15,000) dollars plus on going rental loss.

If I don't hear from you with in ten (10) days of receipt of this letter I will be forced to start Litigation.

Thank you for your anticipated cooperation.

Respectfully submitted,



David Hatchigan

20

08-17-2020

Case ID: 150604314

Enclosures (2)

Forward U.S.P.S. R.R.R. NO. 7004-0750-000-7272

CC: CARRIER CORPORATION
One Carrier Place
Farmington, Conn. 06034-4018
Attention: GARNETT KEELEY/ALEXA GIBB
U.S.P.S. R.R.R. NO. 7004-0750-0000-0106-7265

PEIRCE-PHELPS INC.
Joseph P. Vagnozzi
20000 North 59th Street
Philadelphia Pa. 19131
215-879-7249/215-879-5141 fax
jpv@peirce.com
U.S.P.S. NO. 7004-0750-0000-0106-7258

CARRIER (4)

Lynn Nash@carrier.utc.com

21

SENDER: COMPLETE THIS SECTION

- Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:

ARRIER CORPORATION
100 CARRIER PLACE
FARMINGTON, CONNECTICUT
06034-4018

A. Signature		<input type="checkbox"/> Agent
		<input type="checkbox"/> Addressee
B. Received by (Printed Name)		C. Date of Delivery
David L. Wolf		6/19
D. Is delivery address different from item 1?		<input type="checkbox"/> Yes <input type="checkbox"/> No If YES, enter delivery address below:
3. Service Type		
<input checked="" type="checkbox"/> Certified Mail		<input type="checkbox"/> Express Mail
<input type="checkbox"/> Registered		<input checked="" type="checkbox"/> Return Receipt for Merchandise
<input type="checkbox"/> Insured Mail		<input type="checkbox"/> C.O.D.
4. Restricted Delivery? (Extra Fee) <input type="checkbox"/> Yes		

2. Article Number

7004 0750 0000 0106 7265

(Transfer from service label)

102595-01-M-2509

PS Form 3811, August 2001

Domestic Return Receipt

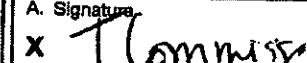
SENDER: COMPLETE THIS SECTION

- Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:

ARRIER CORPORATION
100 CARRIER PLACE
P.O. BOX 4808
CARRIER PLACE
SYRACUSE, N.Y. 15221

COMPLETE THIS SECTION ON DELIVERY

A. Signature		<input type="checkbox"/> Agent
		<input type="checkbox"/> Addressee
B. Received by (Printed Name)		C. Date of Delivery
Tom Morris		
D. Is delivery address different from item 1?		<input type="checkbox"/> Yes <input type="checkbox"/> No If YES, enter delivery address below:
3. Service Type		
<input checked="" type="checkbox"/> Certified Mail		<input type="checkbox"/> Express Mail
<input type="checkbox"/> Registered		<input checked="" type="checkbox"/> Return Receipt for Merchandise
<input type="checkbox"/> Insured Mail		<input type="checkbox"/> C.O.D.
4. Restricted Delivery? (Extra Fee) <input type="checkbox"/> Yes		

Article Number

7004 0750 0000 0106 7272

(Transfer from service label)

102595-01-M-2509

S Form 3811, August 2001

Domestic Return Receipt

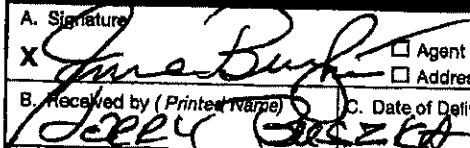
SENDER: COMPLETE THIS SECTION

- Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:

DEARBORN-PHELPS INC
JOSEPH P. VAGNOLI
100 NORTH 59th STREET
PHILA PA 19101

COMPLETE THIS SECTION ON DELIVERY

A. Signature		<input type="checkbox"/> Agent
		<input type="checkbox"/> Addressee
B. Received by (Printed Name)		C. Date of Delivery
Jerry DeBrek		6/17
D. Is delivery address different from item 1?		<input type="checkbox"/> Yes <input type="checkbox"/> No If YES, enter delivery address below:
3. Service Type		
<input type="checkbox"/> Certified Mail		<input type="checkbox"/> Express Mail
<input type="checkbox"/> Registered		<input type="checkbox"/> Return Receipt for Merchandise
<input type="checkbox"/> Insured Mail		<input type="checkbox"/> C.O.D.
4. Restricted Delivery? (Extra Fee) <input type="checkbox"/> Yes		

Article Number

7004 0750 0000 0106 7258

(Transfer from service label)

PS Form 3811, August 2001

22

Case ID: 150604312

3710185

3710185 BILL TO: JOE SKINNS (CASH SALE)
PEIRCE PHLEIPS
2000 NORTH 59TH STREET
PHILADELPHIA PA 1913

SHIP TO: RANBAZZO MECHANICAL
DAVE HATCH
610-527-7513
PHILADELPHIA PA 19131 215-879-7060
(200511031439-jes-430-0141441)
HAG RES PAYNE

MAD 01: JES JES 02:39

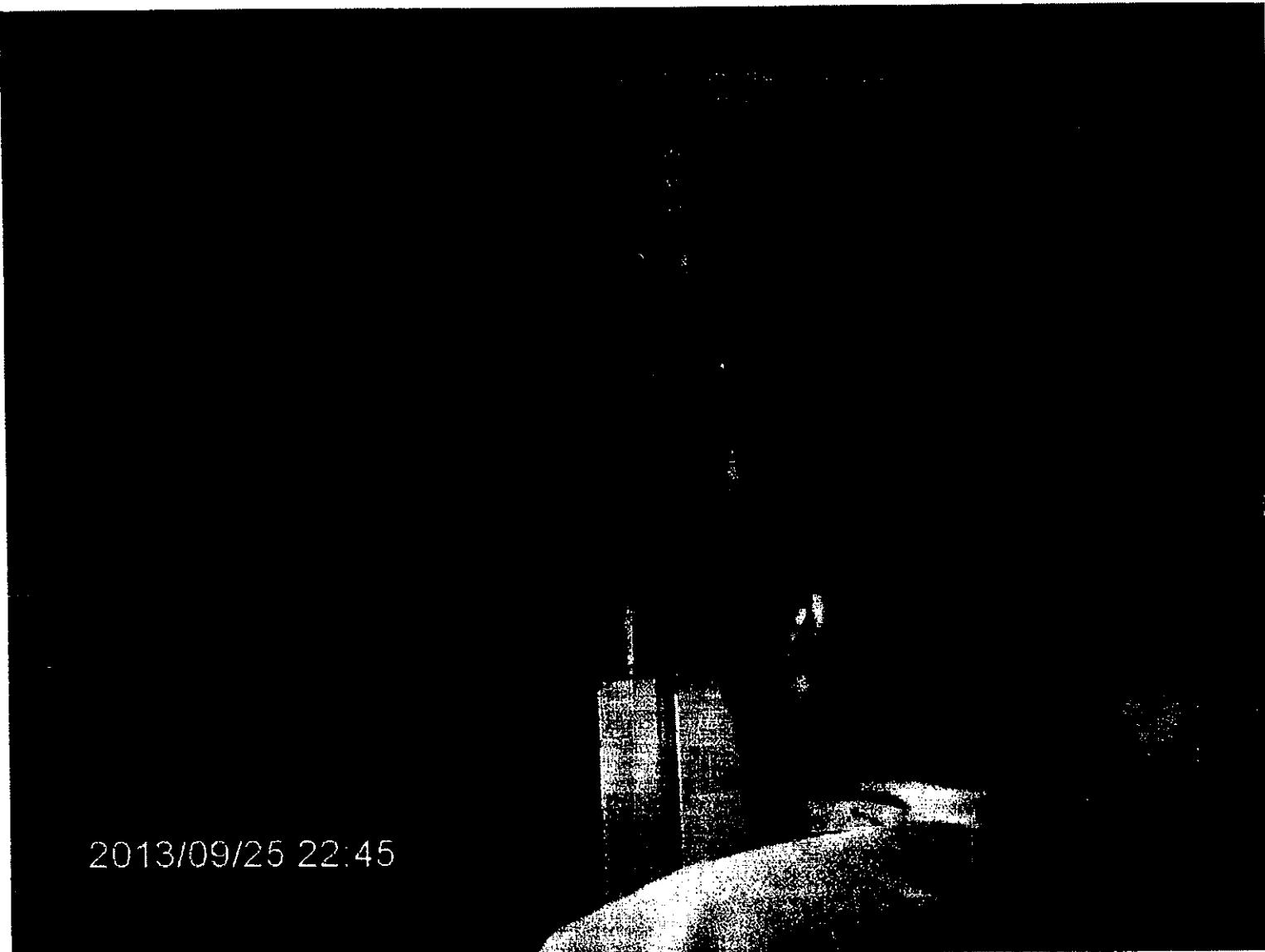
SALES LINE		CUSTOMER		SHIP VIA PICKUP		INSTRUCTIONS / MARK		SALES ORDER		RELEASE DATE		F&B POINT PICKUP		PAGE
ORDER LINE	QUANTITY ORDERED	QUANTITY RELEASED	QUANTITY SHIPPED	ITEM NUMBER / VENDOR NUMBER	UNIT YES	DESCRIPTION	OPEN DATE	11/03/05	11/03/05	UNIT PRICE	EXT. PRICE			1
5	1	1	N EA	CA 506L0243 506L-024---3		PAC PURON 2T 208/230 W/LOUVERED GRILLE	307							
10	1	1	N EA	CA CPRECURB007A00 CPRECURB007A00		14" TALL ROOF CURB FOR 48GS 018 - 042	62							
			S/N:	HC16	2									
				TBD9A	3									
						THANK YOU FOR YOUR ORDER. JOSEPH E. SKINIS		2/5	879	2060				
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17.07.2020 22:00

SELLER: *John C. H. Smith* \$ 14,228 - 1/2

23

Case ID: 150604314



34

From: David Hatchigian [mailto:david3091@verizon.net]
Sent: Wednesday, October 23, 2013 6:47 PM
To: Joseph Vagnozzi
Subject: Re: 50gl

HELLO JOE, THANK YOU FOR FINDING THE LEAK IN THE CONDENSING UNIT. I NEVER WOULD HAVE FOUND THAT. NICE TO HAVE ACCESS TO SOMEONE WHO IS TRAINED IN THE PROPER PROCEDURES. I THOUGHT YOU WERE GOING TO SEND ME FILTER RACK ASSEMBLY PART NO. DAVID 610-446-7257

----- Original Message -----

From: Joseph Vagnozzi
To: David Hatchigian
Sent: Wednesday, September 25, 2013 1:12 PM
Subject: Re: 50gl

(1)

Sounds good
I will see you tomorrow at 9am

Sent from my iPhone

On Sep 25, 2013, at 12:43 PM, "David Hatchigian" <david3091@verizon.net> wrote:

I WILL BE THERE 9:00 A.M. THURSDAY SEPTEMBER 26, 2013 WITH COFFEE, CREAM, SUGAR, SILICONE, NUT DRIVERS, 32' EXTENSION LADDER, H.D. VEHICLE TO DELIVER EQUIPMENT. ANY THING ELSE YOU MAY WANT TO CONSIDER DO NOT HESITATE TO LET ME KNOW. DAVID 610-446-7257/215-280-6345 C THANK YOU, YOUR TIME DOESN'T GO UNAPPRECIATED (I WILL BE AT THE REAR OF THE BUILDING)

----- Original Message -----

From: Joseph Vagnozzi
To: David Hatchigian
Sent: Wednesday, September 25, 2013 11:38 AM
Subject: Re: 50gl

Tomorrow at 9am work for me.

I do not carry any tools and do not have a ladder. We are technical advisers so not service vans.

let me know if 9 works for you and if you can have a ladder and tools on site.

Thanks

Sent from my iPhone

On Sep 25, 2013, at 11:23 AM, "David Hatchigian" <david3091@verizon.net> wrote:

THANK YOU FOR GETTING BACK TO ME. ADDRESS OF PROPERTY IS 7512 BRENTWOOD ROAD, PHILA. PA. 19051. TOMORROW IS FINE, WHAT TIME, I AM VERY

(25)

ANXIOUS TO RESOLVE THIS ON GOING PROBLEM. I
WILL SUPPLY THE MASTIC OR SILCONE , WILL YOU BE
COMMING WITH A 32' EXTENSION LADDER ?
610-446-7257 DAVID3091@VERIZON.NET

----- Original Message -----

From: [Joseph Vagnozzi](mailto:Joseph.Vagnozzi)
To: david3091@verizon.net
Sent: Wednesday, September 25, 2013 10:27 AM
Subject: 50gl

David

I took a look at the parts breakdown of your unit, and realize it is a different design then I was thinking of when we spoke this morning. I assume it is the same issue and my suggested correction will still work, but think that a site visit is a good idea since it is not exactly the same as I originally thought.

I suggest we have access to a garden hose to repeat your test in order to identify the location of the leak. Please bring along either outdoor mastic, or silicone to seal any areas we might find.

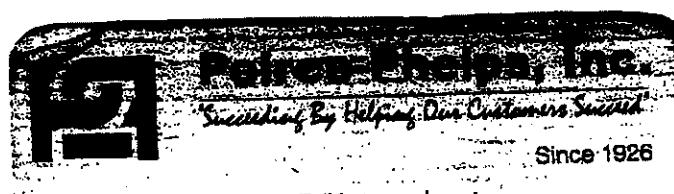
If you could give me the address again we can work out a day and time to meet up. I have tomorrow free if that will work, I understand it is short notice but let me know if it a possibility.

Thanks

This email, and any attachment to it, may contain information that is proprietary, privileged or confidential or that may be otherwise legally exempt from disclosure and is intended only for the individual(s) or entity to which it is addressed. If you are not the named recipient, or the employee or agent responsible for delivering it to the intended recipient, you are not authorized to read, print, retain, copy, disclose or distribute this email or any part of it. If you have received this email in error, please return it immediately to the sender, delete it and all copies from your system, and destroy any hard copies of this communication.

This email has been scanned by the Symantec Email Security.cloud service.
For more information please visit
<http://www.symanteccloud.com>

(26)



Joseph P. Vagnozzi
Technical Service Advisor
Heating & Air Conditioning Group
2000 North 59th Street
Philadelphia, PA 19131
(215) 879-7249
(215) 879-5141 FAX
jpv@peirce.com



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(215) 879-5141 FAX
jpv@peirce.com

(29)

Single-Package Electric Cooling Unit with Puron® (R-410A) Refrigerant

Visit www.carrier.com

A Guide To Operating and Maintaining Your Single-Package Electric Cooling Unit

NOTE TO INSTALLER

This manual should be left with the equipment owner.

WARNING

Do not store or use gasoline or other flammable vapors and liquids in the vicinity of this or any other appliance. Failure to follow this warning could result in fire, serious injury, or death.

WARNING

Do not use this unit if any part has been under water. Immediately call a qualified service technician to inspect the unit and to replace any part of the control system which has been under water. Failure to follow this warning could result in electrical shock, fire, serious injury, or death.

WARNING

Before performing recommended maintenance, be sure the main power switch to unit is turned off. Electric shock could cause serious injury or death.

TO START UNIT

Step 1—Turn on the electrical power supply to unit.

Step 2—Select temperature and set system switch to desired mode.

TO SHUT UNIT OFF

If unit is being shut down because of a malfunction, call your dealer as soon as possible.

Step 1—Set system switch to OFF.

Step 2—Turn off the electrical power supply to unit.

ROUTINE MAINTENANCE

All routine maintenance should be handled by skilled, experienced personnel. Your dealer can help you establish a standard procedure.

For your safety, keep the unit area clear and free of combustible materials, gasoline, and other flammable liquids and vapors.

To assure proper functioning of the unit, flow of condenser air must not be obstructed from reaching the unit. Clearance of at least 36 in. is required from top of unit and on sides except the power entry side (42 in. clearance) and the duct side (12 in. minimum clearance).

MAINTENANCE AND CARE FOR THE EQUIPMENT OWNER

Before proceeding with those things you might want to maintain yourself, please carefully consider the following:

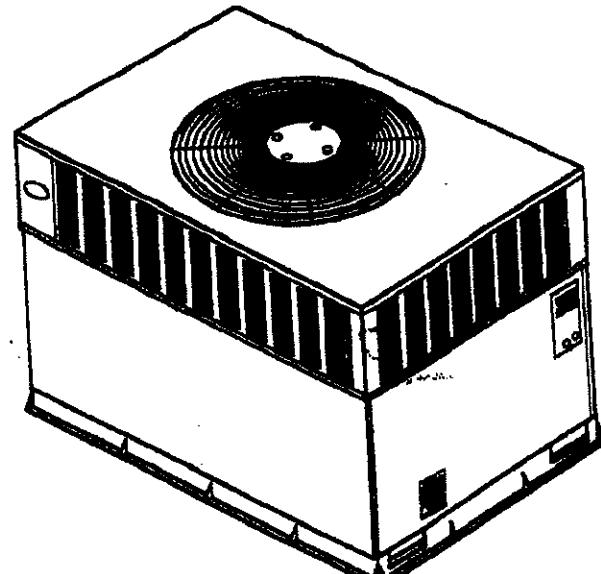


Fig. 1—Unit 50GL

WARNING

1. TURN OFF ELECTRICAL POWER TO YOUR UNIT BEFORE SERVICING OR PERFORMING MAINTENANCE. ELECTRIC SHOCK COULD CAUSE SERIOUS INJURY OR DEATH.

2. When removing access panels or performing maintenance functions inside your unit, be aware of sharp sheet metal parts and screws. Although special care is taken to reduce sharp edges to a minimum, be extremely careful when handling parts or reaching into the unit.

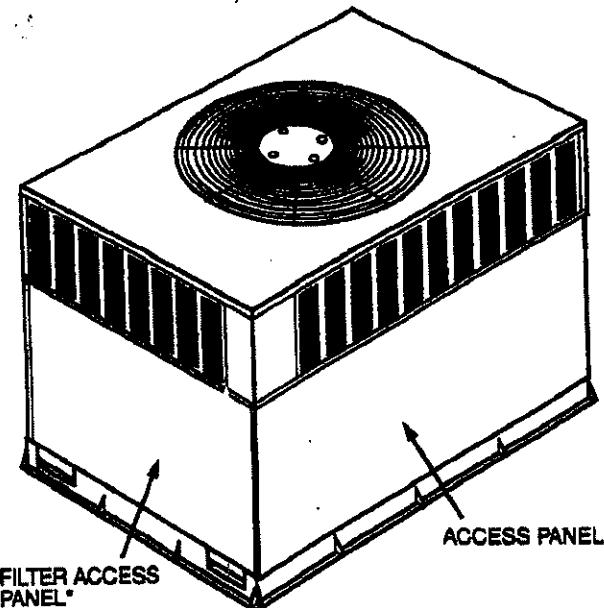
AIR FILTERS—Air filter(s) should be checked at least every 3 or 4 weeks and changed or cleaned whenever it becomes dirty. Dirty filters produce excessive stress on the blower motor and can cause the motor to overheat and shut down. Table 1 indicates the correct filter size for your unit. Refer to Fig. 2 to access the filter(s).

To replace or inspect filter(s) (or accessory filter rack when supplied):

1. Remove the filter access panel using a 5/16-in. nut driver.
2. Remove the filter(s) by pulling the filter(s) out of the unit. If the filter(s) is dirty, clean or replace with new one.

When installing the new filter(s), note the direction of the airflow arrows on the filter frame.

If you have difficulty in locating your air filter(s), or if you have questions concerning proper filter maintenance, contact your dealer for instructions. When replacing filters, always use the same size and type of filter that was supplied originally by the installer.



*For accessory filter rack.

Fig. 2—Filter Access Panel—Vertical Supply Shown

Table 1 — Indoor-Air Filter Data

UNIT SIZE	FILTER SIZE
50GL024-030	20x20x1
50GL036	20x24x1
50GL042-060	24x30x1

CAUTION

Never operate your unit without filters in place. Failure to heed this warning may result in damage to the blower motor and/or compressor. An accumulation of dust and lint on internal parts of your unit can cause loss of efficiency and, in some cases, fire.

FANS AND FAN MOTOR — Periodically check the condition of fan wheels and housings and fan-motor shaft bearings. No lubrication of condenser- or evaporator-fan bearings or motors is required or recommended.

EVAPORATOR AND CONDENSER COILS — Cleaning of the coils should only be done by qualified service personnel. Contact your dealer for the required annual maintenance.

CONDENSATE DRAIN — The drain pan and condensate drain line should be checked and cleaned at the same time the cooling coils are checked by your dealer.

COMPRESSOR — All compressors are factory-shipped with a normal charge of the correct type refrigeration grade oil in them and should rarely require additional oil.

CONDENSER FAN

CAUTION

Do not poke sticks, screwdrivers, or any other object into revolving fan blades. Injury or equipment damage may result.

The fan must be kept free of all obstructions to ensure proper cooling. Contact your dealer for any required service.

ELECTRICAL CONTROLS AND WIRING — Electrical controls are difficult to check without proper instruments; therefore, if there are any discrepancies in the operating cycle, contact your dealer and request service.

REFRIGERANT CIRCUIT — The refrigerant circuit is difficult to check for leaks without the proper equipment; therefore, if inadequate cooling is suspected, contact your local dealer for service.

WARNING

System under pressure. Relieve pressure and recover all refrigerant before system repair or final unit disposal to avoid serious injury or death. Use all service ports and open all flow-control devices, including solenoid valves.

UNIT PANELS — After performing any maintenance or service on the unit, be sure all panels are fastened securely in place to prevent rain from entering unit cabinet and to prevent disruption of the correct unit airflow pattern.

REGULAR DEALER MAINTENANCE

In addition to the type of routine maintenance you might be willing to perform, your unit should be inspected regularly by a properly trained service technician. An inspection (preferably each year, but at least every other year) should include the following:

1. Inspection and, if required, cleaning of the condenser and evaporator coils.
2. Inspection and, if required, cleaning of the evaporator drain pan.
3. Inspection and cleaning of blower wheel housing and motor.
4. Inspection of all supply-air and return-air ducts for leaks, obstructions, and insulation integrity. Any problems found should be resolved at this time.
5. Inspection of the unit base to ensure that no cracks, gaps, etc., exist which may cause a hazardous condition.
6. Inspection of the unit casing for signs of deterioration.
7. Inspection of all electrical wiring and components to assure proper connection.
8. Inspection for leaks in the refrigerant circuit. Pressure-check to determine appropriate refrigerant charge.
9. Inspection of compressor oil level by service person to ensure proper oil level is maintained in the compressor when it is installed and running.
10. Operational check of the unit to determine working conditions. Repair or adjustment should be made at this time.

Your servicing dealer may offer an economical service contract that covers seasonal inspections. Ask for further details.

Complete service instructions can be found in the unit Installation, Start-Up and Service Instructions.

WARRANTY CERTIFICATE

Unit 50GL has a limited warranty. Be sure to read the warranty carefully to determine the coverage for your unit.

BEFORE YOU CALL FOR SERVICE, CHECK FOR SEVERAL EASILY-SOLVED PROBLEMS

If insufficient heating or cooling is suspected:

(1) Check for sufficient airflow. Check the air filter for dirt. Check for blocked return-air or supply-air grilles. Be sure they are open and unobstructed. If these checks do not reveal the cause, call your servicing dealer.

If your unit is not operating at all, check the following list for easy solutions:

(2) Check to be sure that your thermostat temperature selector is set below the indoor temperature during the cooling season. Be sure the system switch is in the COOL position and not in the OFF position.



JOE FG

Single Package Electric Cooling Units with Puron® (R-410A) Refrigerant

Visit www.carrier.com

Installation, Start-Up, and Operating Instructions Sizes 024-060

NOTE: Read the entire instruction manual before starting the installation.

Index	Page
SAFETY CONSIDERATIONS	1
RULES FOR SAFE INSTALLATION AND OPERATION	1-4
GENERAL	4
RECEIVING AND INSTALLATION	4-10
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IDENTIFY UNIT	4
INSPECT SHIPMENT	4
Step 2 — Provide Unit Support	4
ROOF CURB	4
SLAB MOUNT	4
GROUND LEVEL	4
Step 3 — Field Fabricate Ductwork	4
Step 4 — Provide Clearances	4
Step 5 — Rig and Place Unit	4
INSPECTION	4
INSTALLATION	4-6
Step 6 — Connect Condensate Drain	6
Step 7 — Install Duct Connections	6-8
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HIGH-VOLTAGE CONNECTIONS	8-10
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CONTROL VOLTAGE CONNECTIONS	10
TRANSFORMER PROTECTION	10
PRE-START-UP	11
START-UP	11-14
MAINTENANCE	15-20
TROUBLESHOOTING	22
START-UP CHECKLIST	23

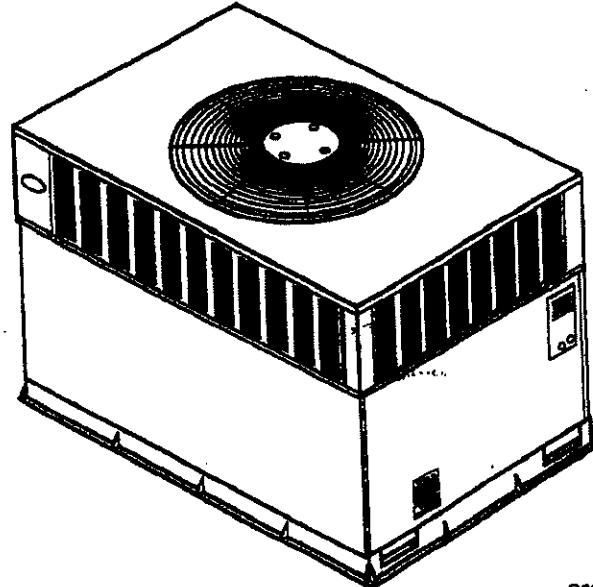
NOTE TO INSTALLER — Before the installation, READ THESE INSTRUCTIONS CAREFULLY AND COMPLETELY. Also, make sure the User's Manual and Replacement Guide are left with the unit after installation.

SAFETY CONSIDERATIONS

Installation and servicing of air-conditioning equipment can be hazardous due to system pressure and electrical components. Only trained and qualified personnel should install, repair, or service air-conditioning equipment.

Untrained personnel can perform basic maintenance functions of cleaning coils and filters. All other operations should be performed by trained service personnel. When working on air-conditioning equipment, observe precautions in the literature, tags and labels attached to the unit, and other safety precautions that may apply.

Follow all safety codes. Wear safety glasses and work gloves. Use quenching cloth for unbrazing operations. Have fire extinguisher available for all brazing operations. Consult a qualified installer or



C99064

Fig. 1—Model 50GL

service agency for information or assistance. The qualified installer or agency must use only factory-authorized kits or accessories when modifying this product.

⚠ WARNING

Before performing service or maintenance operations on system, turn off power to unit. Turn off accessory heater power switch, if applicable. Electrical shock can cause serious injury or death.

⚠ CAUTION

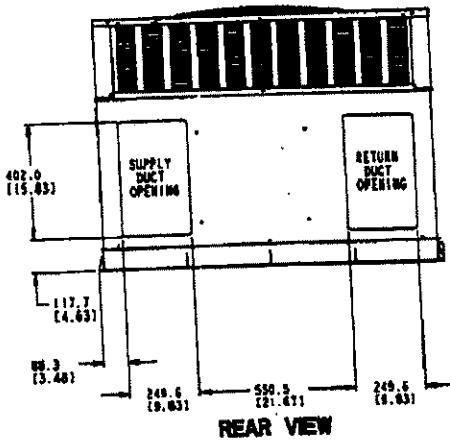
Puron (R-410A) systems operate at higher pressures than standard R-22 systems. Do not use R-22 service equipment or components on Puron (R-410A) equipment. Ensure service equipment is rated for Puron (R-410A).

RULES FOR SAFE INSTALLATION AND OPERATION

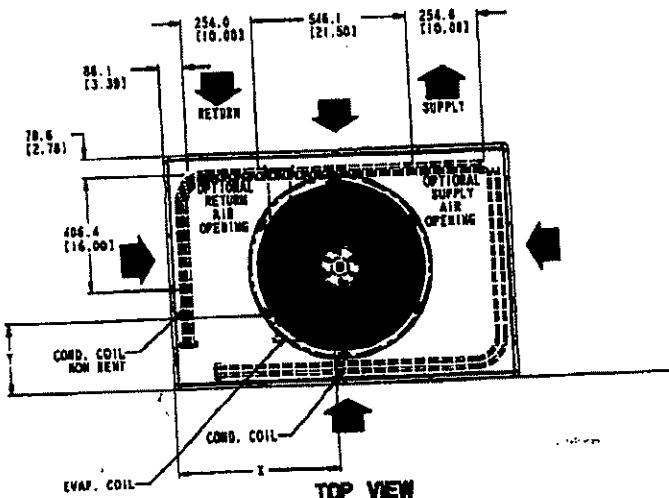
Recognize safety information. This is the safety-alert symbol **⚠**. When you see this symbol in instructions or manuals, be alert to the potential for personal injury.

Understand the signal words DANGER, WARNING, CAUTION, IMPORTANT, and NOTE. These words are used with the safety-alert symbol. DANGER identifies the most serious hazards which will result in severe injury or death. WARNING signifies a hazard which could result in serious injury or death. CAUTION is used to identify unsafe practices which would result in minor personal injury or product and property damage. NOTE and IMPORTANT are used to highlight suggestions which will result in enhanced installation, reliability, or operation.

Manufacturer reserves the right to discontinue, or change at any time, specifications or designs without notice and without incurring obligations.



REAR VIEW



TOP VIEW

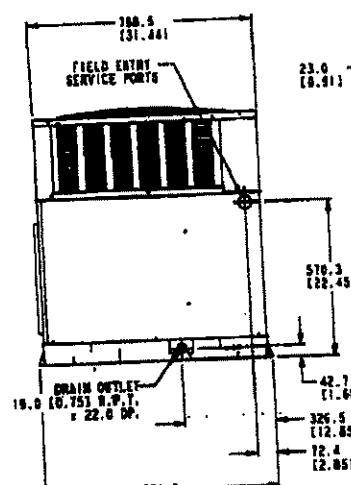
REQ'D CLEARANCES FOR OPERATION AND SERVICING, in. (mm)

Evaporator coil access side	36 (914)
Power entry side (except for NEC requirements)	36 (914)
Unit top	48 (1219)
Side opposite ducts	36 (914)
Duct panel	12 (304.8)*

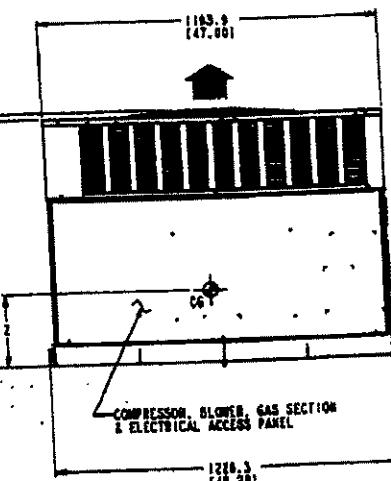
*Minimum distances: If unit is placed less than 12 in. (304.8 mm) from wall system, then the system performance may be compromised.

LEGEND

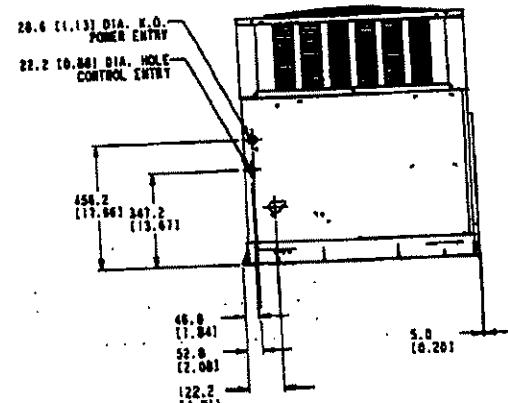
CG - Center of Gravity
 COND - Condenser
 EVAP - Evaporator
 NEC - National Electrical Code
 REQ'D - Required
 Note: Dimensions are in in. (mm)



LEFT SIDE VIEW



FRONT VIEW



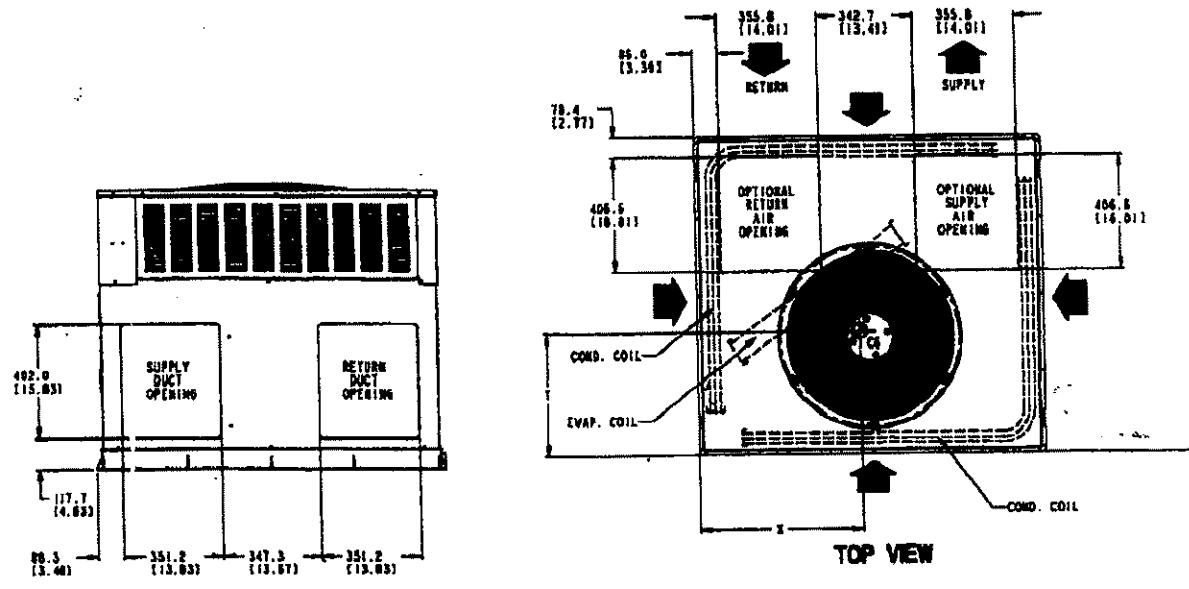
RIGHT SIDE VIEW

C00064

Fig. 2—50GL024-036 Unit Dimensions

UNIT	ELECTRICAL CHARACTERISTICS	UNIT WEIGHT		UNIT HEIGHT IN. (MM) "A"	CENTER OF GRAVITY IN. (MM)		
		lb	kg		X	Y	Z
	208/230-1-60	270	122.5	37.02 (940.3)	16.5 (469.9)	14.5 (368.3)	16.0 (406.4)
50GL024	208/230-1-60, 208/230-3-60	291	132.0	39.02 (991.1)	16.5 (469.3)	15.5 (383.7)	17.6 (447.0)
50GL030	208/1-60, 208/230-3-60, 480-3-60	299	135.6	35.02 (869.5)	16.5 (465.3)	15.3 (387.4)	16.5 (419.1)
50GL036							

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REQUIRED CLEARANCE FOR OPERATION AND SERVICING

	in. [mm]
EVAP. COIL ACCESS SIDE.....	36.00 [914.0]
POWER ENTRY SIDE.....	36.00 [914.0]
(EXCEPT FOR NEC REQUIREMENTS)	
UNIT TOP.....	36.00 [914.0]
SIDE OPPOSITE DUCTS.....	36.00 [914.0]
DUCT PANEL.....	12.00 [304.8]

*MINIMUM DISTANCES: IF UNIT IS PLACED LESS THAN 12.00 [304.8] FROM WALL SYSTEM, THEN SYSTEM PERFORMANCE MAYBE COMPROMISE.

REQUIRED CLEARANCE TO COMBUSTIBLE MATL.

	in. [mm]
TOP OF UNIT.....	14.00 [355.6]
DUCT SIDE OF UNIT.....	2.00 [50.8]
SIDE OPPOSITE DUCTS.....	14.00 [355.6]
BOTTOM OF UNIT.....	0.50 [12.7]
ELECTRIC HEAT PANEL.....	36.00 [914.4]

NEC. REQUIRED CLEARANCES.

	MILLIMETERS [IN.]
BETWEEN UNITS, POWER ENTRY SIDE.....	42.00 [1066.8]
UNIT AND UNGROUNDED SURFACES, POWER ENTRY SIDE ...36.00 [914.0]	
UNIT AND BLOCK OR CONCRETE WALLS AND OTHER GROUNDED SURFACES, POWER ENTRY SIDE.....	42.00 [1066.8]

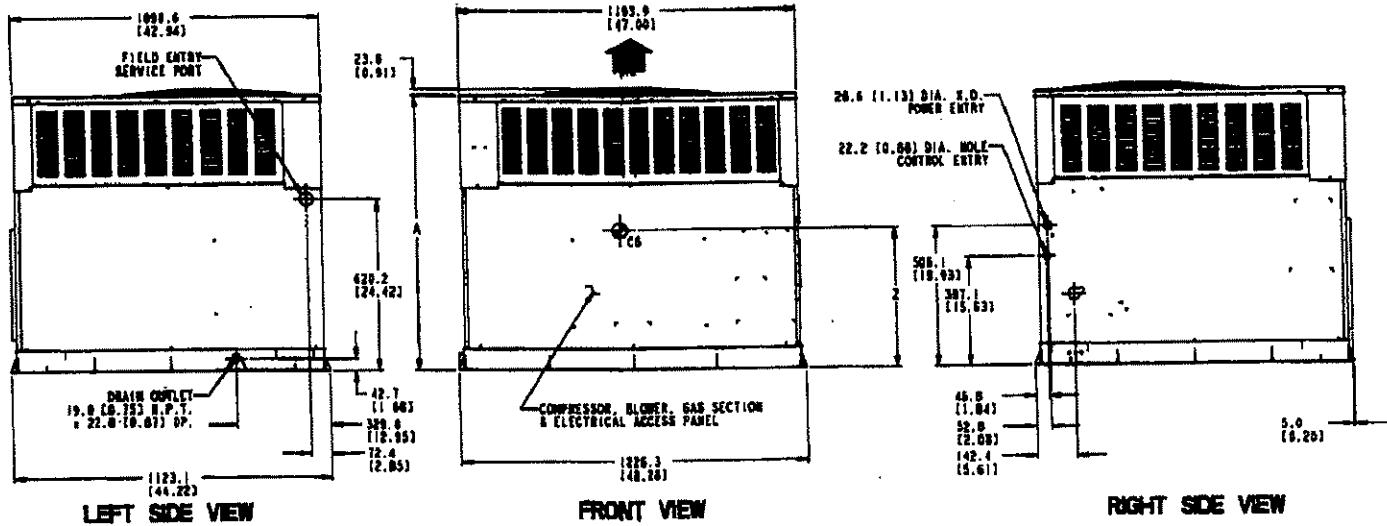


Fig. 3—50GL042-060 Unit Dimensions

C00065

UNIT	ELECTRICAL CHARACTERISTICS	UNIT WEIGHT		UNIT HEIGHT IN. [MM] "A"	CENTER OF GRAVITY IN. [MM]		
		lb	kg		X	Y	Z
50GL042	208/230-1-60, 208/230-3-60, 480-3-60	321	145	38.98 [990.2]	20.5 [520.7]	16.8 [425.5]	16.8 [421.6]
50GL048	208/230-1-60, 208/230-3-60, 480-3-60	328	148	38.98 [990.2]	19.5 [495.3]	17.6 [447.6]	18.0 [457.2]
50GL060	208/230-1-60, 208/230-3-60, 480-3-60	399	181	42.98 [1091.1]	20.5 [520.7]	16.2 [412.8]	17.6 [447.0]

The power supply (volts, phase, and hertz) must correspond to that specified on unit rating plate.

The electrical supply provided by the utility must be sufficient to handle load imposed by this unit.

This installation must conform with local building codes and with NEC (National Electrical Code) and NFPA 70, NFPA 54/ANSI Z223.1 latest revision, and NFCC (National Fuel Gas Code). Refer to provincial and local plumbing or waste water codes and other applicable local code.

Approved for outdoor installation on wood flooring or on class A, B or C roof covering materials.

These instructions cover minimum requirements and conform to existing national standards and safety codes. In some instances, these instructions exceed certain local codes and ordinances, especially those that may not have kept up with changing residential construction practices. We require these instructions as a minimum for a safe installation.

GENERAL — The 50GL units are fully self-contained, and designed for outdoor installation (See Fig. 1). See Fig. 2 and 3 for unit dimensions. All unit sizes have discharge openings for both horizontal and downflow configurations, and are factory shipped with all duct openings covered. Units may be installed either on a rooftop, ground-level cement slab, or directly on the ground if local codes permit. See Fig. 4 for roof curb dimensions.

RECEIVING AND INSTALLATION

Step 1—Check Equipment

IDENTIFY UNIT — The unit model number and serial number are stamped on unit identification plate. Check this information against shipping papers and job data.

INSPECT SHIPMENT — Inspect for shipping damage while unit is still on shipping pallet. If unit appears to be damaged or is torn loose from its anchorage, have it examined by transportation inspectors before removal. Forward claim papers directly to transportation company. Manufacturer is not responsible for any damage incurred in transit. Check all items against shipping list. Immediately notify the nearest Carrier Air Conditioning office if any item is missing. To prevent loss or damage, leave all parts in original packages until installation.

Step 2—Provide Unit Support

ROOF CURB — Install accessory roof curb in accordance with instructions shipped with curb (See Fig. 4 for roof curb dimensions). Install insulation, cant strips, roofing, and flashing. Ductwork must be attached to curb.

IMPORTANT: The gasketing of the unit to the roof curb is critical for a watertight seal. Install gasketing material supplied with the roof curb. Improperly applied gasketing can also result in air leaks and poor unit performance. Curb should be level to within 1/4 in. (See Fig. 6). This is necessary for unit drain to function properly. Refer to accessory roof curb installation instructions for additional information as required.

SLAB MOUNT — Place the unit on a solid, level concrete pad that is a minimum of 4 in. thick with 2 in. above grade. The slab should extend 2 in. on sides of the unit. Do not secure the unit to the slab *except* when required by local codes.

GROUND LEVEL — If local codes permit, the unit can be placed directly on the ground. Prepare a level gravel foundation for proper drainage.

Step 3—Field Fabricate Ductwork

Secure all ducts to roof curb and building structure on vertical discharge units. *Do not connect ductwork to unit.* For horizontal applications, unit is provided with flanges on the horizontal

openings. All ductwork should be secured to the flanges. Insulate and weatherproof all external ductwork, joints, and roof openings with counter flashing and mastic in accordance with applicable codes.

Ducts passing through an unconditioned space must be insulated and covered with a vapor barrier. If a plenum return is used on a vertical unit, the return should be ducted through the roof deck to comply with applicable fire codes. A minimum clearance is not required around ductwork. Cabinet return-air static shall not exceed .25 in. wg.

Step 4—Provide Clearances

The required minimum operating and service clearances are shown in Fig. 2 and 3. Adequate ventilation and condenser air must be provided.

CAUTION

Do not restrict condenser airflow. An air restriction at either the outdoor-air inlet or the fan discharge can be detrimental to compressor life.

The condenser fan draws air through the condenser coil and discharges it through the top fan grill. Be sure that the fan discharge does not recirculate to the condenser coil. Do not locate the unit in either a corner or under an overhead obstruction. The minimum clearance under a partial overhang (such as a normal house overhang) is 36-in. above the unit top. The maximum horizontal extension of a partial overhang must not exceed 48 in.

Do not place the unit where water, ice, or snow from an overhang or roof will damage or flood the unit. Do not install the unit on carpeting, tile, or other combustible materials.

Step 5—Rig and Place Unit

Rigging and handling of this equipment can be hazardous for many reasons due to the installation location (roofs, elevated structures, etc.)

Only trained, qualified crane operators and ground support staff should handle and install this equipment.

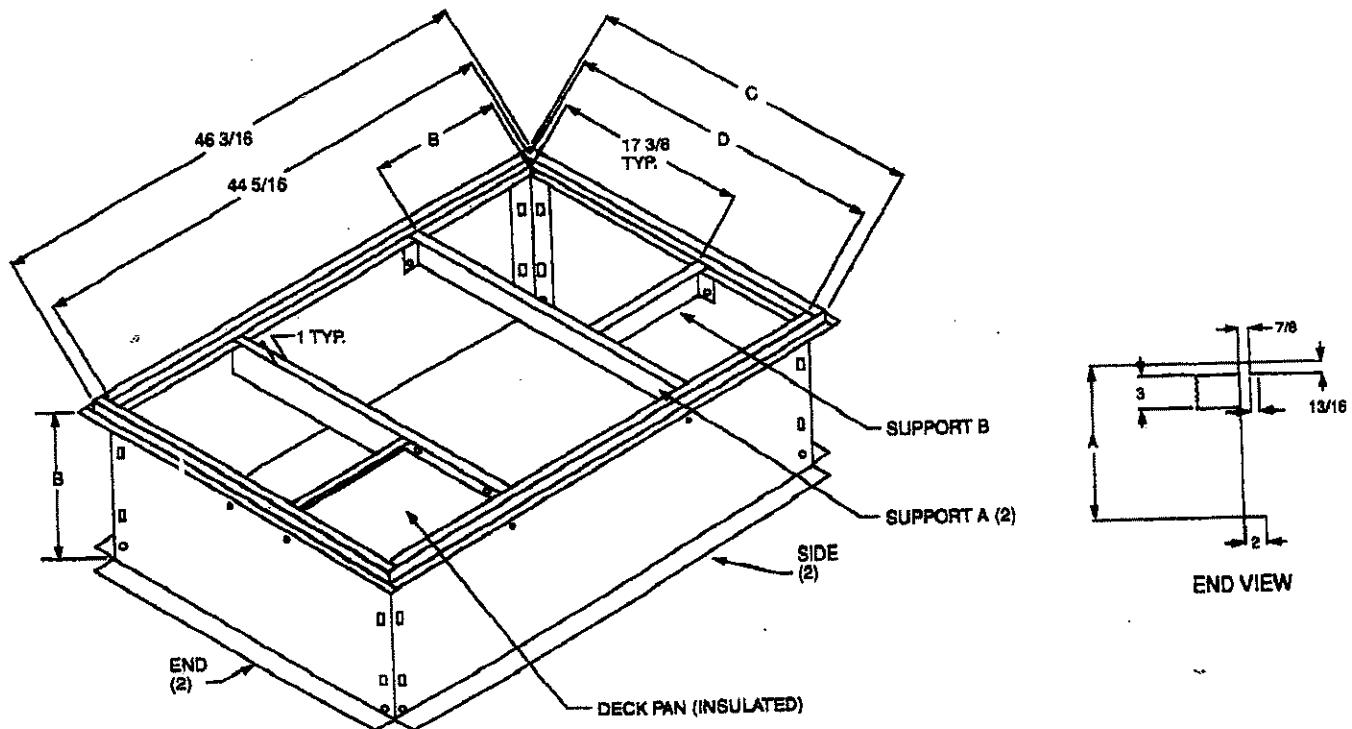
When working with this equipment, observe precautions in the literature, on tags, stickers and labels attached to the equipment, and any other safety precautions that might apply.

Follow all applicable safety codes. Wear safety shoes and work gloves.

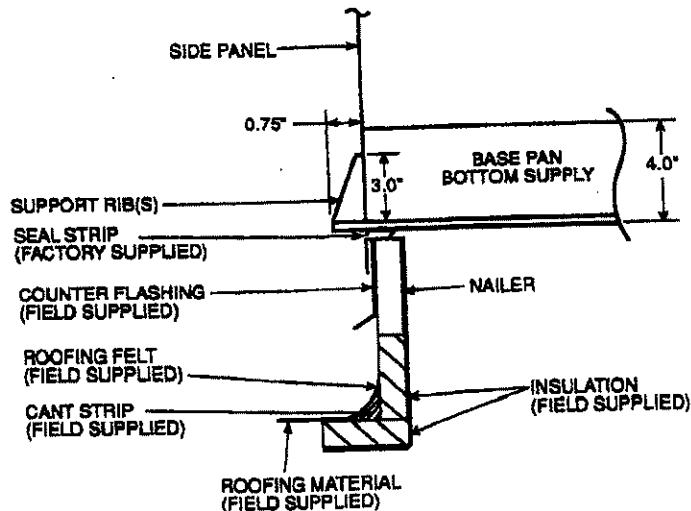
INSPECTION — Prior to initial use, and at monthly intervals, all rigging brackets and straps should be visually inspected for any damage, evidence of wear, structural deformation, or cracks. Particular attention should be paid to excessive wear at hoist hooking points and load support areas. Brackets or straps showing any kind of wear in these areas must not be used and should be discarded.

INSTALLATION

1. Remove unit from shipping carton. Leave top shipping skid on the unit as a spreader bar to prevent the rigging straps from damaging the unit. If the wood skid is not available, use a spreader bar of sufficient length to protect unit from damage.
2. Position the lifting bracket assembly around the base of the unit. Be sure the strap does not twist.
3. Place each of the 4 metal lifting brackets into the handholds in the composite pan.
4. Thread lifting bracket strapping around bottom perimeter of unit as follows:
 - a. Open lever of tension buckle (ratchet type).
 - b. Feed strapping through tension buckle (See Fig. 8).



A99320



A99340

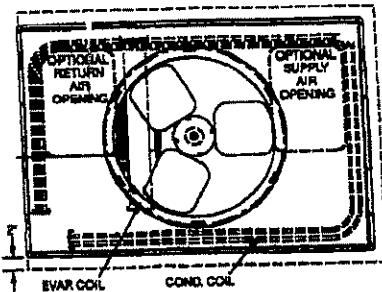
SDGL	UNIT SIZE	ODS CATALOG ORDERING NO.	A IN. [MM]	B IN. [MM]	C IN. [MM]	D IN. [MM]
ROOF CURB	024-036	CPRFCURB006A00	8 [203]	11-27/32 [301]	30-5/8 [778]	28-3/4 [730]
		CPRFCURB007A00	14 [356]	11-27/32 [301]	30-5/8 [778]	28-3/4 [730]
	042-060	CPRFCURB008A00	8 [203]	15-27/32 [402]	42-1/8 [1070]	40-1/4 [1022]
		CPRFCURB009A00	14 [356]	15-27/32 [402]	42-1/8 [1070]	40-1/4 [1022]

NOTES:

1. Roof curb must be set up for unit being installed.
2. Seal strip must be applied as required to unit being installed.
3. Dimensions in [] are in millimeters.
4. Roof curb is made of 16 gauge steel.
5. Table lists only the dimensions per ODS Catalog Ordering Number that have changed.
6. Attach ductwork to curb (flanges of duct rest on curb).
7. Insulated panels: 1-in. thick fiberglass 1 lb density.

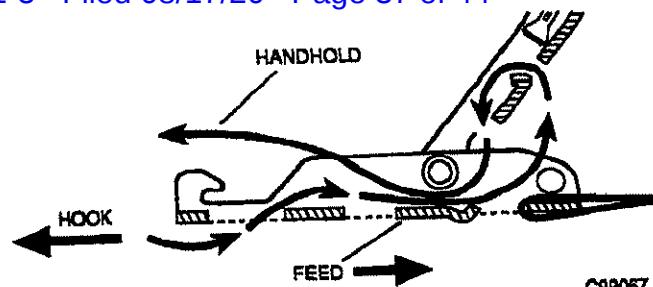
Fig. 4—Roof Curb Dimensions

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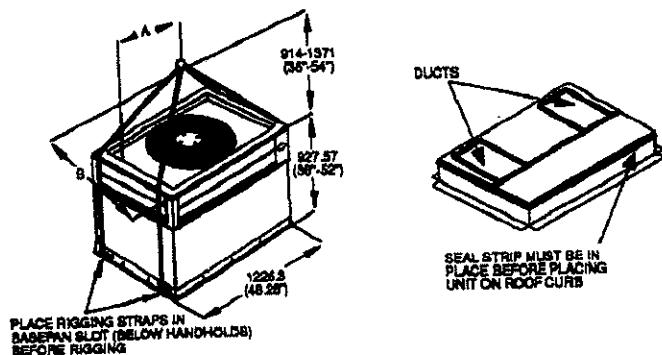
C99014

Fig. 5—Slab Mounting Details



C99067

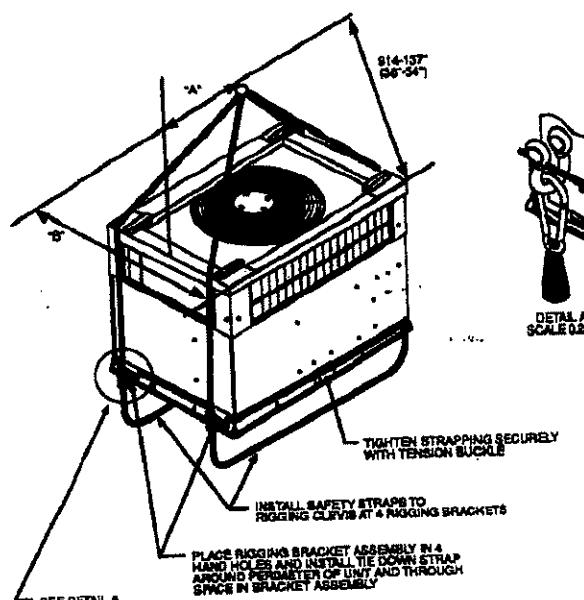
Fig. 8—Belt Threading



C99015

Fig. 6—Suggested Rigging

SIZE	MAXIMUM WEIGHT		A		B	
	lb	kg	in.	mm	in.	mm
024	292	132.5	18.5	469.9	14.50	368.3
030	313	142.5	19.5	495.3	15.50	393.7
036	321	145.6	19.5	495.3	15.25	387.4
042	343	155.6	20.5	520.7	16.75	426.5
048	348	157.9	19.5	495.3	17.62	447.8
060	421	191.0	20.5	520.7	16.25	412.8



C99068

Fig. 9—Lifting Point

8. Position lifting point directly over the unit's center of gravity.
9. Lift unit. When unit is directly over the roof curb, remove the 2 safety straps. Lower the equipment onto the roof curb.

Step 6—Connect Condensate Drain

NOTE: When installing condensate drain connection be sure to comply with local codes and restrictions.

Model 50GL disposes of condensate water through a 3/4 in. NPT fitting which exits through the base on the evaporator coil access side (See Fig. 2 and 3 for location).

Condensate water can be drained directly onto the roof in rooftop installations (where permitted) or onto a gravel apron in ground-level installations. Install a field-supplied condensate trap at end of condensate connection to ensure proper drainage. Make sure that the outlet of the trap is at least 1 in. lower than the drainpan condensate connection to prevent the pan from overflowing (See Fig. 10). When using a gravel apron, make sure it slopes away from the unit.

Connect a drain tube using a minimum of 3/4 -in. PVC or 3/4 -in. copper pipe (all field-supplied) at the outlet end of the 2-in. trap. Do not undersize the tube. Pitch the drain tube downward at a slope of at least one in. for every 10 ft of horizontal run. Be sure to check the drain tube for leaks. Prime trap at the beginning of the cooling season start-up.

Step 7—Install Duct Connections

The unit has duct flanges on the supply- and return-air openings on the side and bottom of the unit. For downshot applications the ductwork can be connected to the roof curb (See Fig. 2 and 3 for connection sizes and locations).

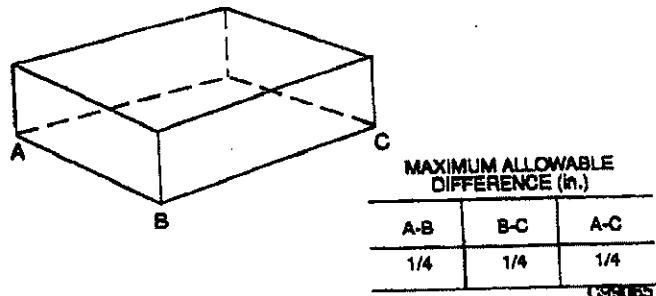


Fig. 7—Unit Leveling Tolerances

- Pull strapping through tension buckle unit taut.
- Snap lever down to lock strap in tension buckle. To release strapping, squeeze safety latch, lift lever, and pull webbing outward.
- Tighten the tension buckle until it is taut. Lifting brackets must be secure in the handholds.
- Attach field-supplied clevis or hook of sufficient strength to hole in the lifting bracket (See Fig. 9).
- Attach the 2 safety straps directly to the clevis or hook at the 4 rigging brackets. DO NOT attach the safety straps to the lifting brackets (See Fig. 9).

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Table 1—Physical Data — Unit 50GL

UNIT SIZE	024	030	036	042	048	060
NOMINAL CAPACITY (ton)	2	2-1/2	3	3-1/2	4	5
OPERATING WEIGHT (lb)	270	291	299	321	326	399
COMPRESSOR			Scroll			
REFRIGERANT (R-410A) Quantity (lb)	5.0	5.5	6.8	8.0	9.5	10.0
REFRIGERANT METERING DEVICE Orifice ID (in.)	Accurater® Piston					
CONDENSER COIL Rows...Fin/s/in. Face Area (sq ft)	.057	.057	.065	.070	.073	.086
CONDENSER FAN Nominal Cfm Diameter (in.) Motor Hp (Rpm)	1...17 10.8	1...17 12.7	2...17 9.1	2...17 12.3	2...17 12.3	2...17 16.4
EVAPORATOR COIL Rows...Fin/s/in. Face Area (sq ft)	2350 22 1/8 (825)	2350 22 1/8 (825)	2350 22 1/8 (825)	2350 22 1/8 (825)	3300 22 1/4 (1100)	3300 22 1/4 (1100)
EVAPORATOR BLOWER Nominal Airflow (Cfm) Size (in.) Motor (hp)	800 10x10 1/4	1000 10x10 1/4	1200 10x10 1/2	1400 11x10 3/4	1600 11x10 3/4	1750 11x10 1
HIGH-PRESSURE SWITCH (psig) Cutout Reset (Auto)				810 ± 15 420 ± 25		
LOSS-OF-CHARGE/LOW-PRESSURE SWITCH (Liquid Line) (psig) Cutout Reset (Auto)				20 ± 5 45 ± 10		
RETURN-AIR FILTERS (in.) Throwaway	20x20x1	20x20x1	20x24x1	20x30x1	24x30x1	24x30x1

* Required filter sizes shown are based on the larger of the ARI (Air Conditioning and Refrigeration Institute) rated cooling airflow or the heating airflow velocity of 300 ft/min for throwaway type or 450 ft/min for high-capacity type. Air filter pressure drop for non-standard filters must not exceed 0.08 in. wg.

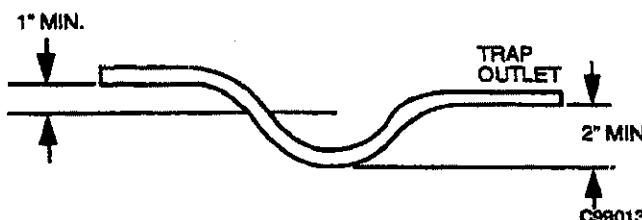


Fig. 10—Condensate Trap

IMPORTANT: Use flexible connectors between ductwork and unit to prevent transmission of vibration. Use suitable gaskets to ensure weathertight and airtight seal. When electric heat is installed, use fire proof canvas (or similar heat resistant material) connector between ductwork and unit discharge connection. If flexible duct is used, insert a sheet metal sleeve inside duct. Heat resistant duct connector (or sheet metal sleeve) must extend 24-in. from the unit connections flanges into the ductwork.

Table 2 — Minimum Airflow for Safe Electric Heater Operation (Cfm)

SIZE					
024	030	036	042	048	060
800	1000	1200	1400	1600	2000

CONFIGURING UNITS FOR DOWNTIME (VERTICAL) DISCHARGE

WARNING

Before performing service or maintenance operations on the system, turn off main power to unit or electrical shock could result.

1. Open all electrical disconnects before starting any service work.

2. Remove side duct covers to access bottom return and supply knock out covers (See Fig. 12).
3. To remove supply and return duct covers, break front and right side connecting tabs with a screwdriver and a hammer. Push cover down to break rear and left side tabs.
4. If unit ductwork is to be attached to vertical opening flanges on the unit basepan (jackstand applications only), do so at this time. Collect ALL screws that were removed. Do not leave screws on rooftop as permanent damage to the roof may occur.
5. It is recommended that the basepan insulation around the perimeter of the vertical return-air opening be secured to the basepan with aluminum tape. Applicable local codes may require aluminum tape to prevent exposed fiberglass.
6. Cover both horizontal duct openings with the duct covers shipped on the unit from the factory. Ensure opening is air-and watertight.
7. After completing unit conversion, perform all safety checks and power up unit.

NOTE: The design and installation of the duct system must be in accordance with the standards of the NFPA for installation of nonresidence-type air conditioning and ventilating systems, NFPA 90A or residence-type, NFPA 90B; and/or local codes and ordinances.

Adhere to the following criteria when selecting, sizing, and installing the duct system:

8. Select and size ductwork, supply-air registers, and return-air grilles according to American Society of Heating, Refrigeration and Air Conditioning Engineers (ASHRAE) recommendations.
9. Use flexible transition between rigid ductwork and unit to prevent transmission of vibration. The transition may be screwed or bolted to duct flanges. Use suitable gaskets to ensure weathertight and airtight seal.

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Case ID: 150604314

10. All units must have field-supplied filters or accessory filter rack installed in the return-air side of the unit. Recommended sizes for filters are shown in Table 1.
11. Size all ductwork for maximum required airflow (either heating or cooling) for unit being installed. Avoid abrupt duct size increases or decreases or performance may be affected.
12. Adequately insulate and weatherproof all ductwork located outdoors. Insulate ducts passing through unconditioned space, and use vapor barrier in accordance with latest issue of Sheet Metal and Air Conditioning Contractors National Association (SMACNA)® and Air Conditioning Contractors of America (ACCA) minimum installation standards for heating and air conditioning systems. Secure all ducts to building structure.
13. Flash, weatherproof, and vibration-isolate all openings in building structure in accordance with local codes and good building practices.

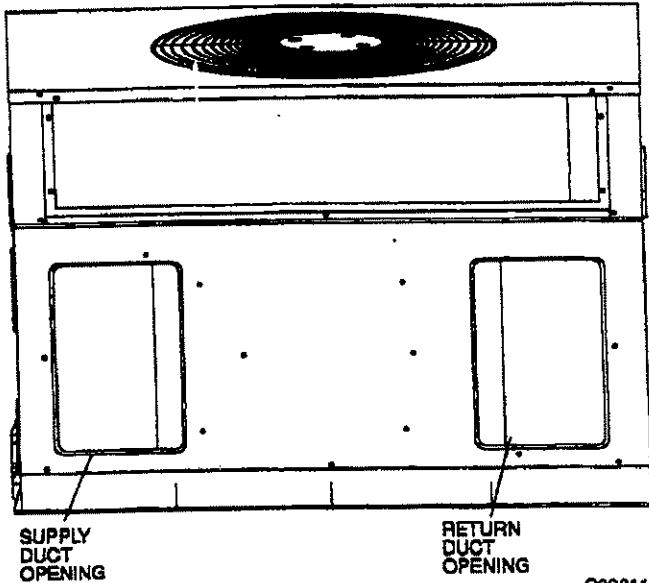


Fig. 11—Supply and Return Duct Opening

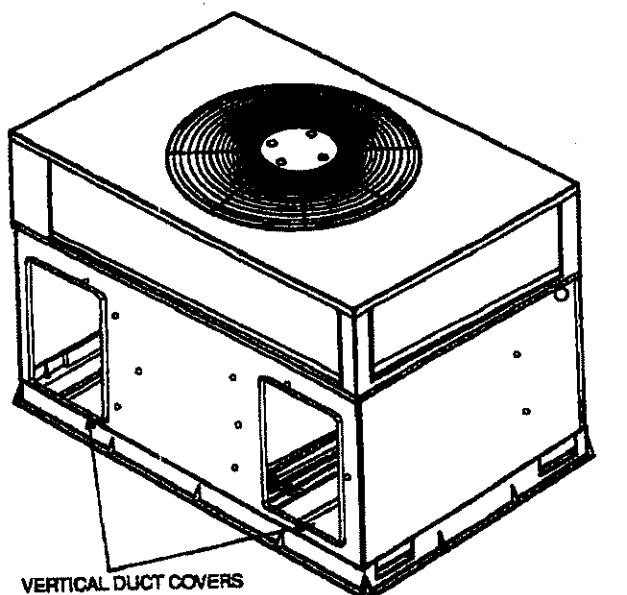


Fig. 12—Vertical Duct Cover Removed

WARNING

The unit cabinet must have an uninterrupted, unbroken electrical ground to minimize the possibility of personal injury if an electrical fault should occur. This ground may consist of an electrical wire connected to the unit ground lug in the control compartment, or conduit approved for electrical ground when installed in accordance with NEC (National Electrical Code) ANSI/ NFPA (latest edition) (in Canada, Canadian Electrical Code CSA [Canadian Standards Association] C22.1) and local electrical codes. Failure to adhere to this warning could result in personal injury or death.

CAUTION

Failure to follow these precautions could result in damage to the unit being installed:

1. Make all electrical connections in accordance with NEC ANSI/NFPA (latest edition) and local electrical codes governing such wiring. In Canada, all electrical connections must be in accordance with CSA standard C22.1 Canadian Electrical Code Part 1 and applicable local codes. Refer to unit wiring diagram.
2. Use only copper conductor for connections between field-supplied electrical disconnect switch and unit. DO NOT USE ALUMINUM WIRE.
3. Be sure that high-voltage power to unit is within operating voltage range indicated on unit rating plate.
4. Do not damage internal components when drilling through any panel to mount electrical hardware, conduit, etc. On 3-phase units, ensure phases are balanced within 2%. Consult local power company for correction of improper voltage and/or phase imbalance.

HIGH-VOLTAGE CONNECTIONS — The unit must have a separate electrical service with a field-supplied, water-proof, disconnect switch mounted at, or within sight from, the unit. Refer to the unit rating plate for maximum fuse/ circuit breaker size and minimum circuit amps (ampacity) for wire sizing (See Table 3 for electrical data).

The field-supplied disconnect switch box may be mounted on the unit over the high-voltage inlet hole when the standard power and low-voltage entry points are used (See Fig. 2 and 3 for acceptable location).

See unit wiring label and Fig. 13 for reference when making high-voltage connections. Proceed as follows to complete the high-voltage connections to the unit.

Single phase units:

1. Run the high-voltage (L1, L2) and ground leads into the control box.
2. Connect ground lead to chassis ground connection.
3. Connect L1 to pressure lug connection 11 of the compressor contactor.
4. Connect L2 to pressure lug connection 23 of the compressor contactor.

Three phase units:

1. Run the high-voltage (L1, L2, L3) and ground leads into the control box.
2. Connect ground lead to chassis ground connection.
3. Locate the black and yellow wires connected to the lines side of the contactor.

Table 3—Electrical Data

UNIT 50GL SIZE	V-PH-HZ	VOLTAGE RANGE		COMPRESSOR		OFM	IFM	ELECTRIC HEAT		POWER SUPPLY		
		Min	Max	RLA	LRA	FLA	FLA	Nominal kW*	FLA	MCA	Max Fuse or CRCT Breaker	MOCP
024	208/230-1-60	187	253	13.5	61.0	0.8	2.0	— 3.8/5.0 7.5/10.0	18.1/20.8 38.1/41.7	19.7/19.7 25.1/28.5 47.8/54.6	25/25 25/30 50/60	—
030	208/230-1-60	187	253	14.7	73.0	0.8	2.1	— 3.8/5.0 7.5/10.0	18.1/20.8 38.1/41.7	21.3/21.3 25.2/28.7 47.8/54.7	25/25 25/30 50/60	—
	208/230-3-60	187	253	9.6	63.0	0.8	2.1	— 3.8/5.0 7.5/10.0	10.4/12.0 20.8/24.1	14.9/14.9 28.7/32.7	20/20 20/20 30/35	—
036	208/230-1-60	187	253	15.4	83.0	0.8	3.6	— 3.8/5.0 7.5/10.0 11.3/15.0	18.1/20.8 38.1/41.7 54.2/62.5	23.7/23.7 27.1/30.5 49.8/56.6 72.2/82.6	30/30 30/30 50/60	—
	208/230-3-60	187	253	12.2	77.0	0.8	3.6	— 3.8/5.0 7.5/10.0 11.3/15.0	10.4/12.0 20.8/24.1 31.3/38.1	19.7/19.7 19.7/19.7 43.6/49.6	25/25 25/25 35/35 45/50	—
	460-3-60	414	506	5.1	35.0	0.8	1.9	— 5.0 10.0 15.0	6.0 12.0 18.0	9.1 9.9 24.9	15 15 25	—
	208/230-1-60	187	253	18.6	105.0	1.6	4.1	— 3.8/5.0 7.5/10.0 11.3/15.0 15.0/20.0	18.1/20.8 38.1/41.7 54.2/62.5 72.2/83.3	28.2/28.2 28.2/31.2 50.3/57.2 72.8/83.3 95.4/109.3	35/35 35/35 60/60	—
042	208/230-3-60	187	253	13.8	88.0	1.6	4.1	— 3.8/5.0 7.5/10.0 11.3/15.0 15.0/20.0	10.4/12.0 20.8/24.1 31.3/36.1 41.6/48.0	22.2/22.2 22.2/22.2 31.2/35.2 44.2/50.2 57.1/65.1	30/30 30/30 35/40 45/60	—
	460-3-60	414	506	6.3	39.0	0.8	2.0	— 5.0 10.0 15.0 20.0	6.0 12.0 18.0 24.1	10.7 10.7 25.1 32.6	15 15 30 35	60/70
	208/230-1-60	187	253	20.5	109.0	1.8	4.1	— 3.8/5.0 7.5/10.0 11.3/15.0 15.0/20.0	18.1/20.8 38.1/41.7 54.2/62.5 72.2/83.3	31.3/31.3 31.3/31.3 50.3/57.2 72.8/83.3 95.4/109.3	40/40 40/40 60/60	—
048	208/230-3-60	187	253	14.7	91.0	1.6	4.1	— 3.8/5.0 7.5/10.0 11.3/15.0 15.0/20.0	10.4/12.0 20.8/24.1 31.3/36.1 41.7/48.1	24.1/24.1 24.1/24.1 31.2/35.2 44.2/50.2 57.1/65.1	30/30 30/30 35/40 45/60	—
	460-3-60	414	506	6.5	46.0	0.9	2.0	— 5.0 10.0 15.0 20.0	6.0 12.0 18.0 24.1	11.0 11.0 25.1 32.6	15 15 30 35	60/70
	208/230-1-60	187	253	27.6	158.0	1.6	6.2	— 3.8/5.0 7.5/10.0 11.3/15 15.0/20.0	18.1/20.8 38.1/41.7 54.2/62.5 72.2/83.3	42.3/42.3 42.3/42.3 52.9/59.8 75.4/85.9 98.0/111.9	50/50 50/50 60/60	—
060	208/230-3-60	187	253	18.1	137.0	1.6	6.2	— 3.8/5.0 7.5/10.0 11.3/15.0 15.0/20.0	10.4/12.0 20.8/24.1 31.3/36.1 41.6/48.0	30.4/30.4 30.4/30.4 33.8/37.8 46.8/52.9 59.7/67.7	35/35 35/35 35/40 50/60	—
	460-3-60	414	506	9.0	62.0	0.9	3.2	— 5.0 10.0 15.0 20.0	6.0 12.0 18.0 24.1	15.4 15.4 19.0 34.1	20 20 30 35	60/70

* Heater capacity (Kw) based on heater voltage of 208v, 240v, & 480v. If power distribution voltage to unit varies from rated heater voltage, heater KW will vary accordingly.

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EXAMPLE: Supply voltage is 460-3-60.

LEGEND

FLA	— Full Load Amps
LRA	— Locked Rotor Amps
MCA	— Minimum Circuit Amps
MOCP	— Maximum Overcurrent Protection
RLA	— Rated Load Amps



$$\begin{aligned} \text{AB} &= 452 \text{ v} \\ \text{BC} &= 464 \text{ v} \\ \text{AC} &= 455 \text{ v} \\ \text{Average Voltage} &= \frac{452 + 464 + 455}{3} \\ &= \frac{1371}{3} \\ &= 457 \end{aligned}$$

NOTES:

1. In compliance with NEC (National Electrical Code) requirements for multimotor and combination load equipment (refer to NEC Articles 430 and 440), the overcurrent protective device for the unit shall be Power Supply fuse. The CGA (Canadian Gas Association) units may be fuse or circuit breaker.
2. Minimum wire size is based on 60 C copper wire. If other than 60 C wire is used, or if length exceeds wire length in table, determine size from NEC.
3. Unbalanced 3-Phase Supply Voltage
Never operate a motor where a phase imbalance in supply voltage is greater than 2%. Use the following formula to determine the percentage of voltage imbalance.

% Voltage imbalance

$$= 100 \times \frac{\text{max voltage deviation from average voltage}}{\text{average voltage}}$$

Determine maximum deviation from average voltage.

$$\begin{aligned} (\text{AB}) 457 - 452 &= 5 \text{ v} \\ (\text{BC}) 464 - 457 &= 7 \text{ v} \\ (\text{AC}) 457 - 455 &= 2 \text{ v} \end{aligned}$$

Maximum deviation is 7 v.

Determine percent of voltage imbalance.

$$\begin{aligned} \% \text{ Voltage Imbalance} &= 100 \times \frac{7}{457} \\ &= 1.53\% \end{aligned}$$

This amount of phase imbalance is satisfactory as it is below the maximum allowable 2%.

IMPORTANT: If the supply voltage phase imbalance is more than 2%, contact your local electric utility company immediately.

4. Connect field L1 to black wire on connection 11 of the compressor contactor.
5. Connect field wire L2 to yellow wire on connection 13 of the compressor contactor.
6. Connect field wire L3 to Blue wire from compressor.

SPECIAL PROCEDURES FOR 208-V OPERATION

A. WARNING

Make sure that the power supply to the unit is switched OFF before making any wiring changes. With disconnect switch open, move yellow wire from transformer (3/16 in.) terminal marked 230 to terminal marked 200. This retaps transformer to primary voltage of 208 vac. Electrical shock could cause serious injury or death.

CONTROL VOLTAGE CONNECTIONS

NOTE: Do not use any type of power-stealing thermostat. Uncontrollable problems may result.

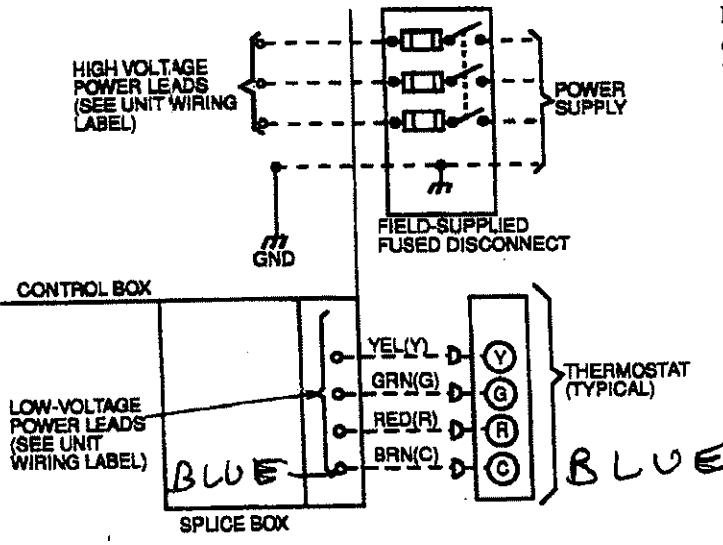
Use no. 18 American Wire Gage (AWG) color-coded, insulated (35 C minimum) wires to make the control voltage connection between the thermostat and the unit. If the thermostat is located more than 100 ft from the unit (as measured along the control voltage wires), use no. 16 AWG color-coded, insulated (35 C minimum) wires.

STANDARD CONNECTION — Remove knockout hole located in the electric heat panel adjacent to the service access panel (See Fig. 2 and 3). Remove the rubber grommet from the installer's packet (included with unit) and install grommet in the knockout opening. Provide a drip loop before running wire through panel.

Run the low-voltage leads from the thermostat, through the inlet hole, and into unit low-voltage splice box.

Locate five 18-gage wires leaving control box. These low-voltage connection leads can be identified by the colors red, green, yellow, brown, and white (See Fig. 10). Ensure the leads are long enough to be routed into the low-voltage splice box (located below right side of control box). Stripped yellow wire is located in connection box. Route leads through hole in bottom of control box and make low-voltage connections (See Fig. 13). Secure all cut wires, so that they do not interfere with operation of unit.

TRANSFORMER PROTECTION — The *transformer* is of energy-limiting type. It is set to withstand a 30-sec overcurrent shorted secondary condition.



NOTE: Use blue wire for 3-phase units only.

C99010

Fig. 13—High- and Control-Voltage Connections

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PRE-START-UP

A WARNING

Failure to observe the following warnings could result in serious injury or death:

1. Follow recognized safety practices and wear protective goggles when checking or servicing refrigerant system.
2. Do not operate compressor or provide any electric power to unit unless compressor terminal cover is in place and secured.
3. Do not remove compressor terminal cover until all electrical sources are disconnected.
4. Relieve and recover all refrigerant from both high- and low-pressure sides of system before touching or disturbing anything inside terminal box if refrigerant leak is suspected around compressor terminals.
5. Never attempt to repair soldered connection while refrigerant system is under pressure.
6. Do not use torch to remove any component. System contains oil and refrigerant under pressure. To remove a component, wear protective goggles and proceed as follows:
 - a. Shut off electrical power to unit.
 - b. Relieve and reclaim all refrigerant from system using both high- and low-pressure ports.
 - c. Cut component connecting tubing with tubing cutter and remove component from unit.
 - d. Carefully unscrew remaining tubing stubs when necessary. Oil can ignite when exposed to torch flame.

Proceed as follows to inspect and prepare the unit for initial startup:

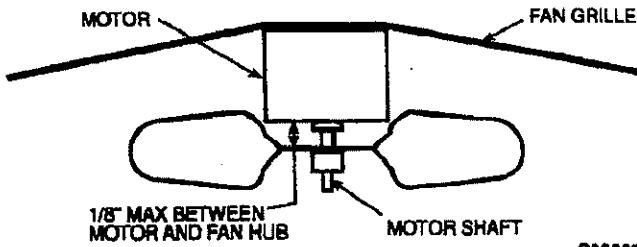
1. Remove access panel.
2. Read and follow instructions on all WARNING, CAUTION, and INFORMATION labels attached to, or shipped with, unit.
3. Make the following inspections:
 - a. Inspect for shipping and handling damages such as broken lines, loose parts, disconnected wires, etc.
 - b. Inspect for oil at all refrigerant tubing connections and on unit base. Detecting oil generally indicates a refrigerant leak. Leak test all refrigerant tubing connections using electronic leak detector, halide torch, or liquid-soap solution. If a refrigerant leak is detected, see Check for Refrigerant Leaks section under Start-Up.
 - c. Inspect all field- and factory-wiring connections. Be sure that connections are completed and tight.
 - d. Inspect coil fins. If damaged during shipping and handling, carefully straighten fins with a fin comb.

Verify the following conditions:

- a. Make sure that condenser-fan blade is correctly positioned in fan orifice. Leading edge of condenser-fan blade should be 1/2 in. maximum from fan orifice (See Fig. 14).
- b. Make sure that air filter(s) is in place.
- c. Make sure that condensate drain trap is filled with water to ensure proper drainage.
- d. Make sure that all tools and miscellaneous loose parts have been removed.

START-UP

CHECK FOR REFRIGERANT LEAKS — Proceed as follows to locate and repair a refrigerant leak and to charge the unit:



C99009

Fig. 14—Fan Blade Clearance

1. Locate leak and make sure that refrigerant system pressure has been relieved and reclaimed from both high- and low-pressure ports.

2. Repair leak following accepted practices.

NOTE: Replace filter drier whenever the system has been opened for repair.

3. Charge unit with R-410A refrigerant, using a volumetric-charging cylinder or accurate scale. *Refer to unit rating plate for required charge.*

START UP COOLING SECTION AND MAKE ADJUSTMENTS

A CAUTION

Complete the required procedures given in the Pre-Start-Up section before starting the unit. Do not jumper any safety devices when operating the unit. Do not operate the compressor when the outdoor temperature is below 40°F (unless accessory low-ambient kit is installed). Do not rapid-cycle the compressor. Allow 5 min between "on" cycles to prevent compressor damage.

CHECKING COOLING CONTROL OPERATION — Start and check the unit for proper cooling control operation as follows:

1. Place room thermostat SYSTEM switch in OFF position. Observe that blower motor starts when FAN switch is placed in ON position and shuts down when FAN switch is placed in AUTO position.
2. Place SYSTEM switch in COOL position and FAN switch in AUTO position. Set cooling control below room temperature. Observe that compressor, condenser fan, and evaporator blower motors start. Observe that cooling cycle shuts down when control setting is satisfied. The evaporator fan will continue to run for 30 sec.
3. When using an auto-changeover room thermostat, place both SYSTEM and FAN switches in AUTO positions. Observe that unit operates in heating mode when temperature control is set to "call for heating" (above room temperature) and operates in cooling mode when temperature control is set to "call for cooling" (below room temperature).

IMPORTANT: Three-phase, scroll compressor units (50GL030-060) are direction-oriented. These units must be checked to ensure proper compressor 3-phase power lead orientation. If not corrected within 5 min, the internal protector will shut off the compressor. Any two of the 3-phase power leads to the unit must be reversed to correct rotation. When turning backwards, scroll compressors emit elevated noise levels, and the difference between compressor suction and discharge pressures may be dramatically lower than normal.

CHECKING AND ADJUSTING REFRIGERANT CHARGE — The refrigerant system is fully charged with R-410A refrigerant, tested, and factory-sealed.

NOTE: Adjustment of the refrigerant charge is not required unless the unit is suspected of not having the proper R-410A charge. The charging label and the tables shown refer to system 12.

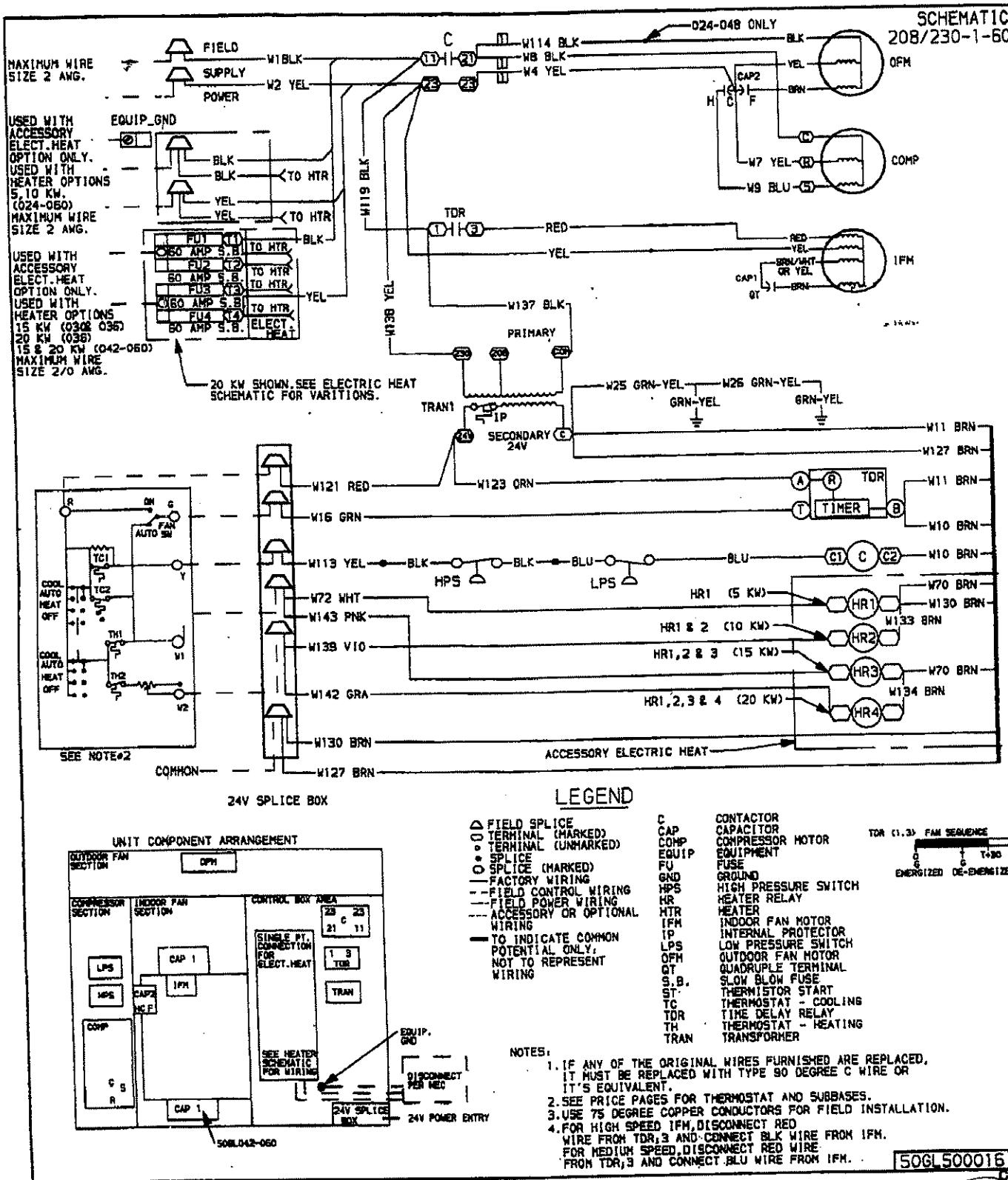


Fig. 15—208/230-1-60 Wiring Diagram

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1-29-2015 5/4 D.H. TO JOE
MC CARY 8:50 EX 1

2-16-15 9:45 AM FROM LYNNE NASH TO D.H.
12:55 EX 7 8:45

2-16-15 12:15 D.H. B/M TO LYNNE NASH 3:33

2-19-15 12:11 D.H. B/M TO L.N. EX 8

2-22-15 10:32 D.H. TO J.V. EX 9
EX 10

2-27-15 9:17 B/M FROM J.V. TO D.H. EX 11

2-27-15 7:59 5/PM D.H. TO J.V. 3:11

2-24-15 2:26 B/M J.V. TO D.H. EX 11

2-22-15 10:32 B/M FROM D.H. TO J.V. EX 11

3-11-15 3:17 FROM LYNNE NASH TO D.H. EX 12

10-23-13 6:47 D.H. TO J.V. THANK YOU BY 13